Farbfernseher
Colour TV
Televisore a colori

Schaltbild · Schematic · Schema

Chassis 100-30
Stereo-Decoder
Bedienteil SP 45 + SP 46 + SP 55 (SQ 25*)

Control Unit
Sezione di comando

7 665 . . .

- **CTV 7053 SP 45 Stereo Color**
- **Locarno SP 45 Stereo Color**
- **Barbados SP 45 Stereo Color**
- **Caracas SP 45 Stereo Color**
- **Rio SP 45 Stereo Color**
- **Venezia SP 45 Stereo Color**
- **Toledo SP 45 Stereo Color**
- **Valencia SP 45 Stereo Color**
- **Valencia SP 45 VT Stereo Color**
- **Valencia SP 46 Stereo Color**
- **Valencia SP 46 VT Stereo Color**
- **Riviera SP 45 Stereo Color**
- **Riviera SP 46 PSO Stereo Color**
- **CTV 6364 SP 45 Stereo Color**
- **Mantua SP 45 Stereo Color**
- **Barcelona SP 45 Stereo Color**
- **Sevilla SP 46 Stereo Color**
- **Mauritius SP 55 Stereo Color**
- **Mantua SP 55 Stereo Color**
- **CTV 5653 SP 55 Stereo Color**
- **Korsika SP 55 Stereo Color**
- **Madagaskar SP 55 Stereo Color**
- **Monza SQ 25 Stereo Color**
- **Columbia SQ 25 VT Stereo Color**
- **TeleVideo 2434**
- **TeleVideo 2444**
- **Bildmeister FS 871 / SP 55**
- **Bildmeister FS 874 / SP 55**
- **Bildmeister FS 898 / SP 55**
- **Bildmeister FS 917 / SQ 25**
- **Bildmeister FS 921 / SP 45**
- **Bildmeister FS 922 / SP 45**
- **Bildmeister FS 924 / SP 45**
- **Bildmeister FS 931 / SP 45**
- **Bildmeister FS 932 / SP 45**
- **Bildmeister FS 934 / SP 45**
- **Bildmeister FV 932 / SP 45**
- **Bildmeister FV 936 / SQ 25**

***) für SQ 25 siehe Schrift**
for SQ 25 refer to service manual
per il SQ 25 vedi istruzioni separate

Diese Geräte tragen das VDE-Zeichen und erfüllen daher die einschlägigen VDE-Bestimmungen. Um die Sicherheit der Geräte zu erhalten, müssen die mit einem solchen Symbol in den Kundendienst-Unterlagen gekennzeichneten Bauelemente durch Originalteile ersetzt werden.

Wichtig ist auch, daß Bauelemente in gleicher Lage wieder eingesetzt werden. ⚠

Achtung! Nach optimalen Einstellungen im Bildröhrenwerk bilden Bildröhre und Ablenksystem eine festverbundene Einheit.

Es erlischt die Bildröhren-Garantie, wenn

- die Lage des Ablenksystems oder der Korrekturmagnete verändert wird.
- Befestigungsmuttern oder Versiegelungen gelöst werden.

These sets are provided with the VDE sign, thus fulfilling the VDE regulations. In order to maintain the safety of the sets, the components marked with a suchlike symbol in the service manuals must be replaced by original parts.

It is also important that components are placed in the same position. ⚠

Note! After optimum adjustments in the picture tube factory, picture tube and deflection yoke represent a firmly connected unit.

Picture tube warranty is expiring in case

- the position of the deflection yoke or the correction magnets is changed,
- mounting nuts or sealings are loosened.

Gli apparecchi sono contrassegnati con il marchio VDE e quindi corrispondono a queste norme. Per garantire la sicurezza degli apparecchi, i componenti contrassegnati con il simbolo riportato a destra e rilevabile dalle istruzioni di manutenzione, devono essere sostituiti con componenti originali.

E'importante che i componenti vengano inseriti di nuovo nella loro posizione originale. ⚠

Attenzione: Dopo la regolazione ottimale effettuata in sede di fabbricazione il cinescopio ed il giogo di deflessione formano un sistema unico. E' quindi vietato:

- spostare i componenti i posti sul collo del cinescopio.
- allentare le viti di tali componenti.

Achtung!
Unter der Chassis-Platte,
dort wo das Netzkabel eingesteckt ist,
steht auch dann Netzspannung,
wenn der Ein/Ausschalter
ausgeschaltet ist.

Attention!
Below the chassis board,
where the mains cable is plugged in,
mains voltage is also present
when the On/Off switch
is in „off" position.

Attenzione!
Sotto la piastra del telaio nel
punto in cui e inserito il cavo
d'alimentazione si trova sempre
sotto tensione anche quando
e'spento l'interruttore di rete.

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bei Druckhaus Gebrüder Gerstenberg

Änderungen vorbehalten
Modifications reserved
Con riserva di modifiche

4 001
646

Service Einstellungen

Die Service-Einstellungen nur am betriebswarmen Gerät vornehmen.
(Bildröhrentyp ▲ △ □ ● beachten)

Einstellung Spannung U 1

U 1 = + 114 V ▲
U 1 = + 140 V △□
U 1 = + 147 V ●

Sender empfangen. Kontrast und Helligkeit auf Minimum einstellen. Röhrenvoltmeter an Meßpunkt 401 und Masse. Mit **R 444** Spannung einstellen.

Vertikalfrequenz TV

V 540 / Pin 9 an Masse
Frequenzzähler an Meßpunkt 554
f = 45 Hz mit **R 562** einstellen.
Kurzschluß aufheben.

Horizontalfrequenz TV

Signal empfangen.
V 540 / Pin 12 an Masse
Frequenzzähler an Pin 4
f = 15625 Hz mit **R 540** einstellen.
Kurzschluß aufheben.

Ost-West-Entzerrung TV

Mit **R 692**
vertikale Gitterlinien
links und rechts am Bildrand
auf möglichst
geradlinigen Verlauf einstellen.

Bildbreite TV ▲

Mit **L 699** einstellen.

Vertikale Linearität ☰

Gittertestbild einspeisen.
Mit **R 570** Kästchen am oberen
und unteren Bildrand
auf gleiche Höhe einstellen.

Folgende Einstellungen werden am Bedienteil vorgenommen.

Bildhöhe TV
Bildlage vertikal TV
Bildbreite TV △ ● □
Bildlage horizontal TV

Das Gerät muß dazu folgendermaßen umgeschaltet werden.

- Gerät mit Ein-/Ausschalter ausschalten.
- Taste ME solange gedrückt halten bis mit Ein-/Ausschalter, Gerät wieder eingeschaltet ist und die Anzeige erscheint.

TV

Taste ☼ kurz drücken
und dann mit Taste +
Bildhöhe verkleinern
oder mit Taste –
Bildhöhe vergrößern.
Danach ME drücken.

TV

Taste ⋈ kurz drücken
und dann mit Taste +
Bild nach oben
oder mit Taste –
Bild nach unten verschieben.
Danach ME drücken.

TV △ ● □

Taste ❂ kurz drücken
und dann mit Taste +
Bildbreite verringern
oder mit Taste –
Bildbreite vergrößern
Danach ME drücken.

TV

Taste ◁ kurz drücken
und dann mit Taste +
Bild nach links
oder mit Taste –
Bild nach rechts verschieben.
Danach ME drücken.

Achtung! Bitte nicht vergessen,
auf normale Fernbedienbarkeit
zurückzuschalten.
Das geschieht durch
ein einmaliges Ausschalten
des Gerätes mit

Service Adjustments

The service adjustments may be carried out at a set warmed up to normal operating temperature only. (Note picture tube ▲ △ □ ●).

Adjustment voltage U 1

U 1 = + 114 V ▲
U 1 = + 140 V △□
U 1 = + 147 V ●

Receive transmitter. Set contrast and brightness to minimum. VTM to measuring point 401 and ground. With **R 444** adjust voltage.

Vertical frequency TV

V 540 / pin 9 to ground
Frequency counter at test point 554.
Set to f = 45 Hz with **R 562.**
Remove short-circuit.

Horizontal frequency TV

Receive signal
V 540 /pin 12 to ground
Frequency counter at pin 4.
Set to f = 15,625 Hz with **R 540.**
Remove short-circuit.

East-West distortion correction TV

Use **R 692**
to set vertical grid lines
at the right and left picture edge
to the straightest course possible.

Picture width TV ▲

With **L 699.**

Vertical linearity ☰

Feed in grid pattern.
Use **R 570** to adjust the squares
at the upper and lower picture edge
to the same height.

The following adjustments are made at the control unit.

Picture height TV
Vertical centering TV
Picture width TV △ ● □
Horizontal centering TV

For this purpose the set must be switched over as follows.

- Switch the set off by pressing the On/off switch.
- Keep the ME button pressed while pressing the On/off switch again. The display reappears.

TV

Press the ☼ button shortly
and reduce picture height
by pressing the + button,
or enlarge picture height
by pressing the – button.
Afterwards press ME.

TV

Press the ⋈ button shortly
and move picture upwards
by pressing the + button,
or move picture downwards
by pressing the – button.
Afterwards press ME.

TV △ ● □

Press the ❂ button shortly
and reduce picture width
by pressing the + button,
or enlarge picture width
by pressing the – button.
Afterwards press ME.

TV

Press the ◁ button shortly
and move the picture to the left
by pressing the + button,
or move the picture to the right
by pressing the – button.
Afterwards press ME.

Attention! Please do not forget
to switch back to normal
remote control mode.
This is achieved
by switching the unit off once
by pressing the On/off switch.

Regolazioni di servizio

Le regolazioni di servizio possone essere effettuato solo ad apparecchio caldo.
(Vede cinescopio ▲ △ □ ●).

Regolazione della tensione U 1

U 1 = + 114 V ▲
U 1 = + 140 V △□
U 1 = + 147 V ●

Ricevere un'emittente. Contrasto e luminosità al minimo. Voltmetro elettronico tra massa ed il punto di misura 401. Tarare con **R 444.**

Frequenza verticale TV

Pin 9 / V 540 a massa.
Frequenzimetro al punto di misura 554.
f = 45 Hz da regolarsi con **R 562.**
Eliminare corto circuito.

Frequenza orizzontale TV

Ricevere un'emittente.
Pin 12 / V 540 a massa.
Frequenzimetro collegato al Pin 4.
Con **R 540** regolare per f = 15625 Hz.
Eliminare corto circuito.

Correzione est-ovest TV

Con **R 692**
regolare le linee verticali
per la minima
distorsione.

Ampiezza orizzontale TV ▲

Con **L 699.**

Linearità verticale ☰

Fornire un segnale a reticolo.
Con **R 570** regolare per la medesima
ampiezza della parte superiore
e inferiore dell'immagine.

Le seguenti regolazione vengono effettuate sulla sezione di comando dell'apparecchio.

Ampiezza verticale TV
Posizione verticale TV
Ampiezza orizzontale TV △ ● □
Posizione orizzontale TV

Per effettuare queste regolazioni l'apparecchio deve essere commutato come descritto in seguito

- Spegnere l'apparecchio con l'interruttore di rete.
- Premere il tasto ME e di nuovo l'interruttore di accensione contemporaneamente sino a quando compare l'indicatore.

TV

Premere brevemente il tasto ☼
ed indi rimpicciolire l'immagine
con il tasto + oppure
ampliarla con il tasto –.
Quindi inserire ME.

TV

Premere brevemente il tasto ⋈
ed indi con il tasto + spostare
l'immagine verso l'alto oppure
con il tasto – verso il basso.
Quindi inserire ME.

TV △ ● □

Premere brevemente il tasto ❂
ed indi con il tasto +
diminuire l'ampiezza orizzontale
oppure ampliarla con il tasto –.
Quindi inserire ME.

TV

Premere brevemente il tasto ◁
ed indi spostare l'immagine con il tasto +
verso sinistra oppure
con il tasto – verso destra.
Quindi Inserire ME.

Attenzione! Si prega non dimenticare
di commutare di nuovo l'apparecchio
su pilotaggio normale.
Questo avviene spegnendo e riaccendendo
di nuovo l'apparecchio con
l'interruttore di rete.

V 540

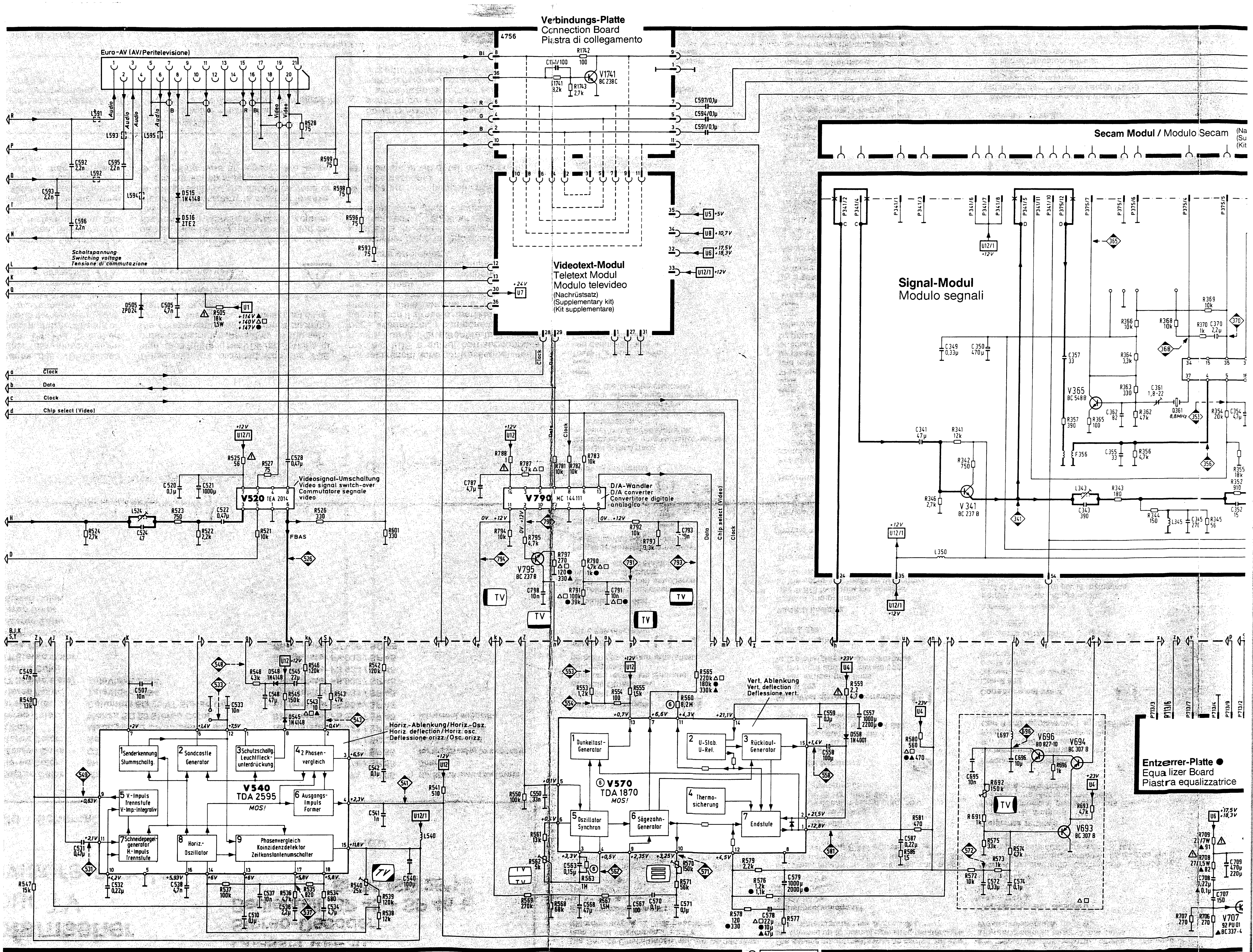
1. Station identification Muting
2. Sandcastle Generator
3. Overload Protection Spot Supression
4. Phase Comparator
5. Vertical Sync Pulse Separator Stage
6. Output Pulse Shaper
7. Line Sync Pulse Separator Stage
8. Horizontal Oscillator
9. Phase Comparator Coincidence Detector Time Constant Switch

1. Segnale di riconsimento della trasmittente – Soppressore del suono
2. Generatore – sandcastle
3. Circuito di protezione – Soppressione del punto luminoso
4. Regolazione fine del comparatore di fase
5. Stadio separatore Impulso verticale
6. Modificatore del segnale – orizzontale in uscita
7. Stadio separatore Impulso orizzontale
8. Oscillatore orizzontale
9. Regolazione fine del comparatore di fase – Investicatore di coincidenza – Commutatore constante di tempo

V 570

1. Blancing Generator
2. U stab.
3. Flyback Pulse Generator
4. Fuse Therm
5. Oscillator Synchronous
6. Ramp Generator
7. Output Stage

1. Generatore del soppressore delle traccie di ritorno
2. Stabilizzatore (U)
3. Generatore delle traccie di ritorno
4. Fusibile-termico
5. Sincronizzatore dell oscillatore verticale
6. Generatore – dente di sega
7. Stadio finale B. F.



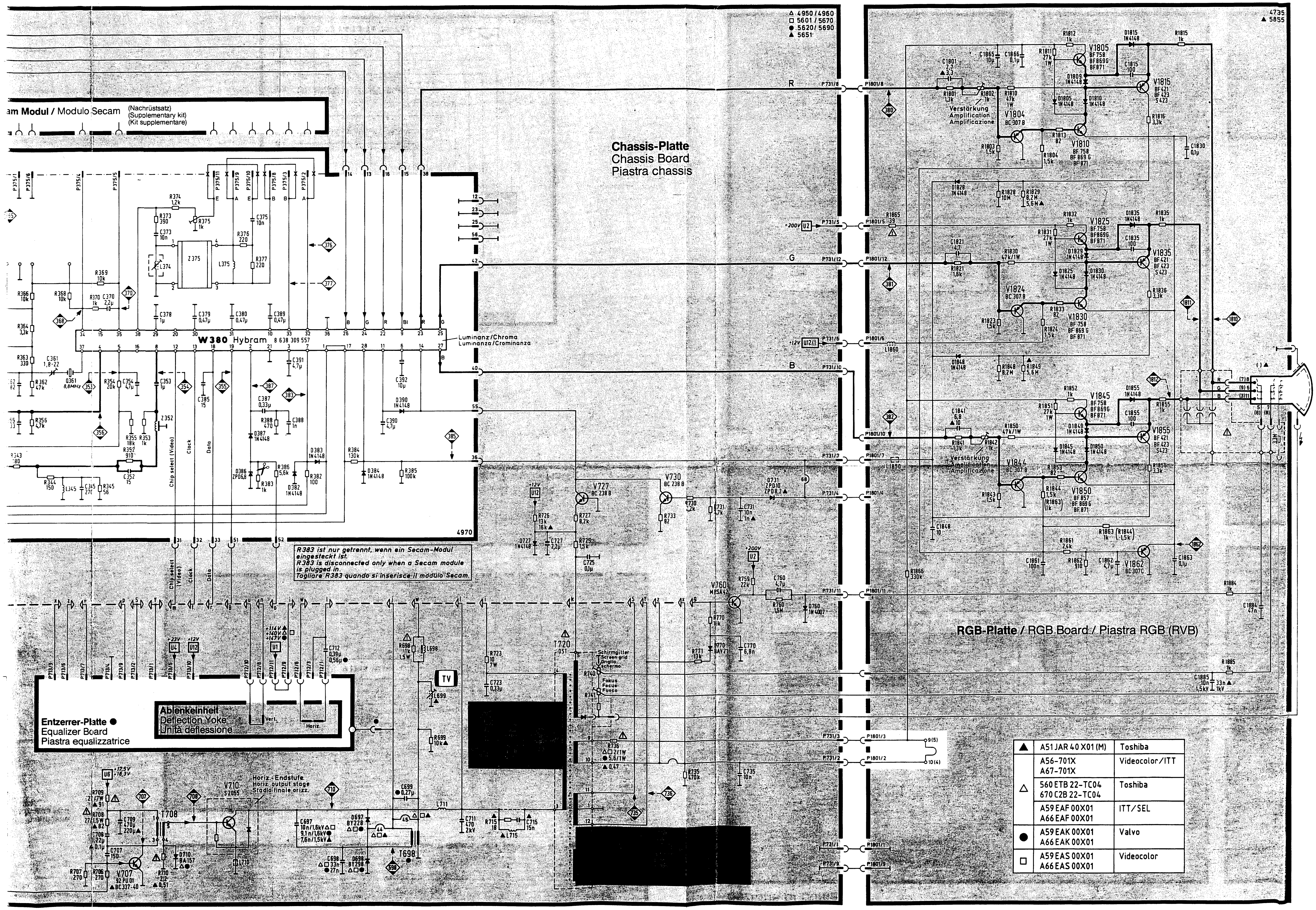
Verbindungs-Platte
Connection Board
Piastra di collegamento
4756
Euro-AV (AV/Peritelevisione)
Audio
Video
Schaltspannung
Switching voltage
Tensione di commutazione
Videotext-Modul
Teletext Modul
Modulo televideo
(Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
V1741 BC 238 C
Secam Modul / Modulo Secam
Signal-Modul
Modulo segnali
Clock
Data
Chip select (Video)
V520 TEA 2014
Videosignal-Umschaltung
Video signal switch-over
Commutatore segnale video
FBAS
V790 MC 144111
D/A-Wandler
D/A converter
Convertitore digitale analogico
V795 BC 237 B
V365 BC 548 B
V341 BC 237 B
V540 TDA 2595 MOS!
1 Senderkennung Stummschaltg.
2 Sandcastle Generator
3 Schutzschaltg. Leuchtfleckunterdrückung
4 2 Phasenvergleich
5 V-Impuls Trennstufe V-Imp.-integrativ
6 Ausgangs-Impuls Former
7 Schneidepegelgenerator H-Impuls Trennstufe
8 Horiz.-Oszillator
9 Phasenvergleich Koinzidenzdetektor Zeitkonstantenumschalter
Horiz.-Ablenkung/Horiz.-Osz.
Horiz. deflection/Horiz. osc.
Deflessione orizz./Osc. orizz.
V570 TDA 1870 MOS!
1 Dunkeltast-Generator
2 U-Stab. U-Rel.
3 Rücklauf-Generator
4 Thermo-sicherung
5 Oszillator Synchron
6 Sägezahn-Generator
7 Endstufe
Vert. Ablenkung
Vert. deflection
Deflessione vert.
Entzerrer-Platte ●
Equalizer Board
Piastra equalizzatrice
V696 BD 827-10
V694 BC 307 B
V693 BC 307 B
V707 92 PU 01 ▲BC 337-4
TV

F3915

Die Spannungen an den IC's sind Richtwerte, gemessen bei normalem Fernsehbetrieb. Sie können nach oben oder unten abweichen.
The given voltages at the ICs pins are approximate values. They are measured during normal operation of the TV set. They may vary more or less.
Le tensioni sui C.I. corrispondono a valori effettivi misurati con apparecchio in normale funzionamento. Sono possibili variazioni in più o in meno.

⑥

V570/TDA1872	
R560	X
R563	—

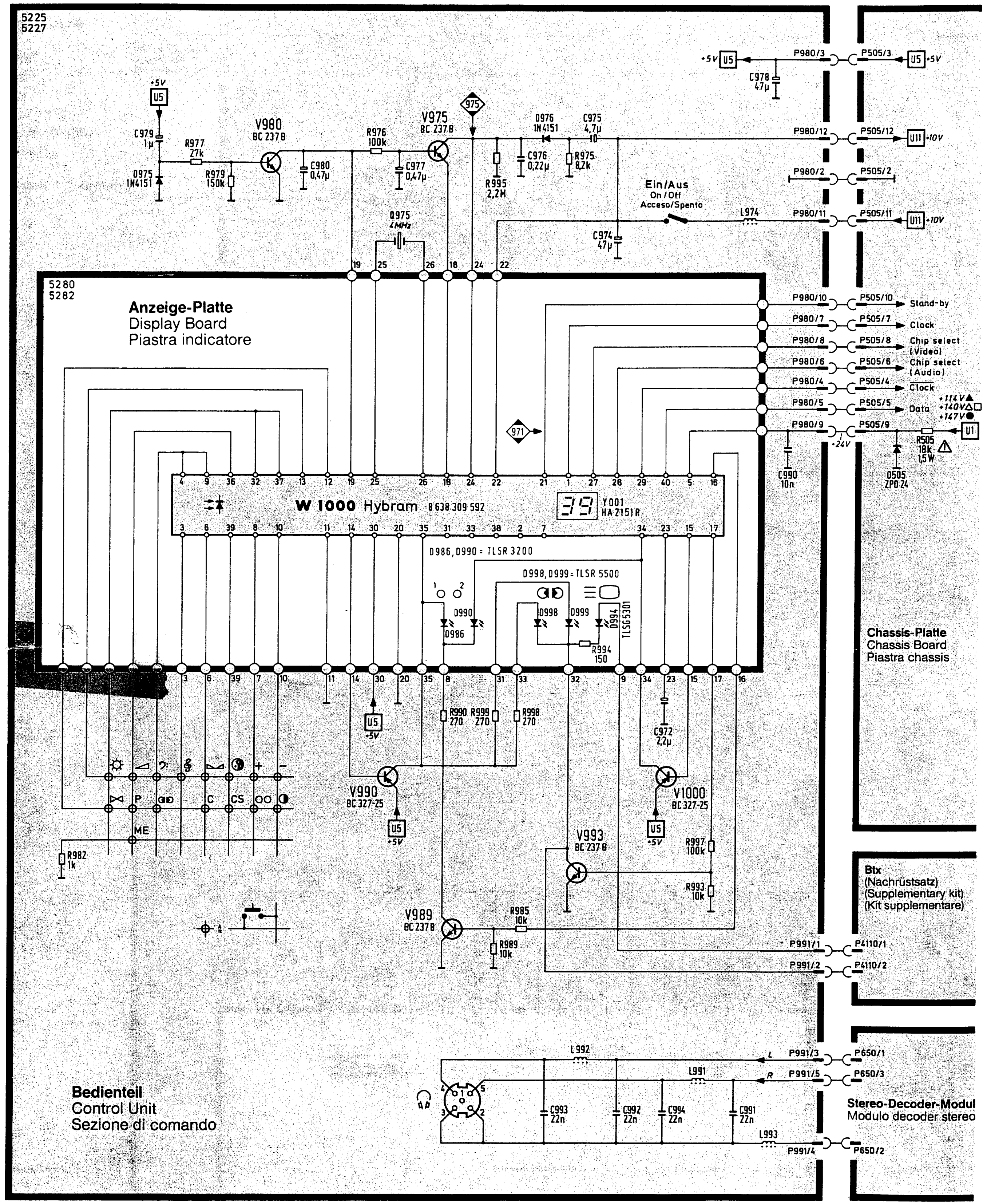

△ 4950/4960
□ 5601/5670
● 5620/5690
▲ 5651
4735
▲ 5855
am Modul / Modulo Secam
(Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
Chassis-Platte
Chassis Board
Piastra chassis
RGB-Platte / RGB Board / Piastra RGB (RVB)
Entzerrer-Platte ●
Equalizer Board
Piastra equalizzatrice
Ablenkeinheit
Deflection Yoke
Unità deflessione
W380 Hybram 8 638 309 557
Luminanz/Chroma
Luminanza/Crominanza
4970
Chip select (Video)
Clock
Data
Verstärkung
Amplification
Amplificazione
Horiz.-Endstufe
Horiz. output stage
Stadio finale orizz.
Schirmgitter
Screen grid
Griglia schermo
Fokus
Focus
Fuoco
V1805 BF758 BF869G BF871
V1815 BF421 BF423 S423
V1804 BC307B
V1810 BF758 BF869G BF871
V1825 BF758 BF869G BF871
V1835 BF421 BF423 S423
V1824 BC307B
V1830 BF758 BF869G BF871
V1845 BF758 BF869G BF871
V1855 BF421 BF423 S423
V1844 BC307B
V1850 BF857 BF869G BF871
V1862 BC307C
V727 BC238B
V730 BC238B
V760 MPSA42
V710 S2055
V707 BC337-40
T708
T698
T720 DST
L711
L715
L699
L698
R
G
B
P731/8
P1801/8
P731/5
P1801/5
P731/12
P1801/12
P731/6
P1801/6
P731/10
P1801/10
P731/7
P1801/7
P731/4
P1801/4
P731/11
P1801/11
P731/3
P1801/3
P731/2
P1801/2
P731/1
P1801/1
P731/9
P1801/9
+200V
+12V
U2
U12
U1
U4
U6
+23V
+114V
+140V
+147V
+17,5V
TV
Vert.
Horiz.

R383 ist nur getrennt, wenn ein Secam-Modul eingesteckt ist.
R383 is disconnected only when a Secam module is plugged in.
Tagliare R383 quando si inserisce il modulo Secam.

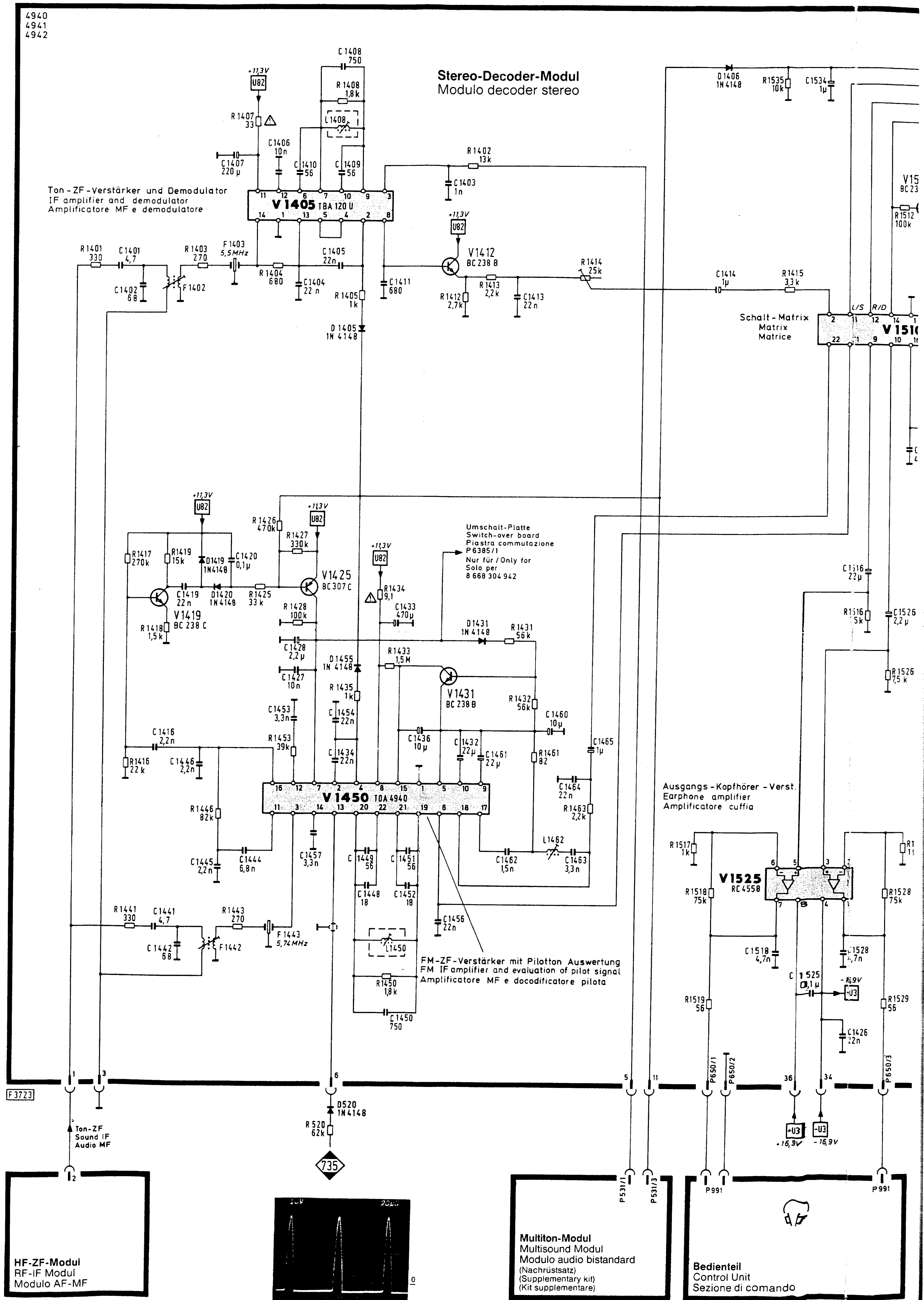
▲	A51 JAR 40 X01 (M)	Toshiba
△	A56-701X A67-701X	Videocolor/ITT
	560 ETB 22-TC04 670 C2B 22-TC04	Toshiba
	A59 EAF 00X01 A66 EAF 00X01	ITT/SEL
●	A59 EAK 00X01 A66 EAK 00X01	Valvo
□	A59 EAS 00X01 A66 EAS 00X01	Videocolor

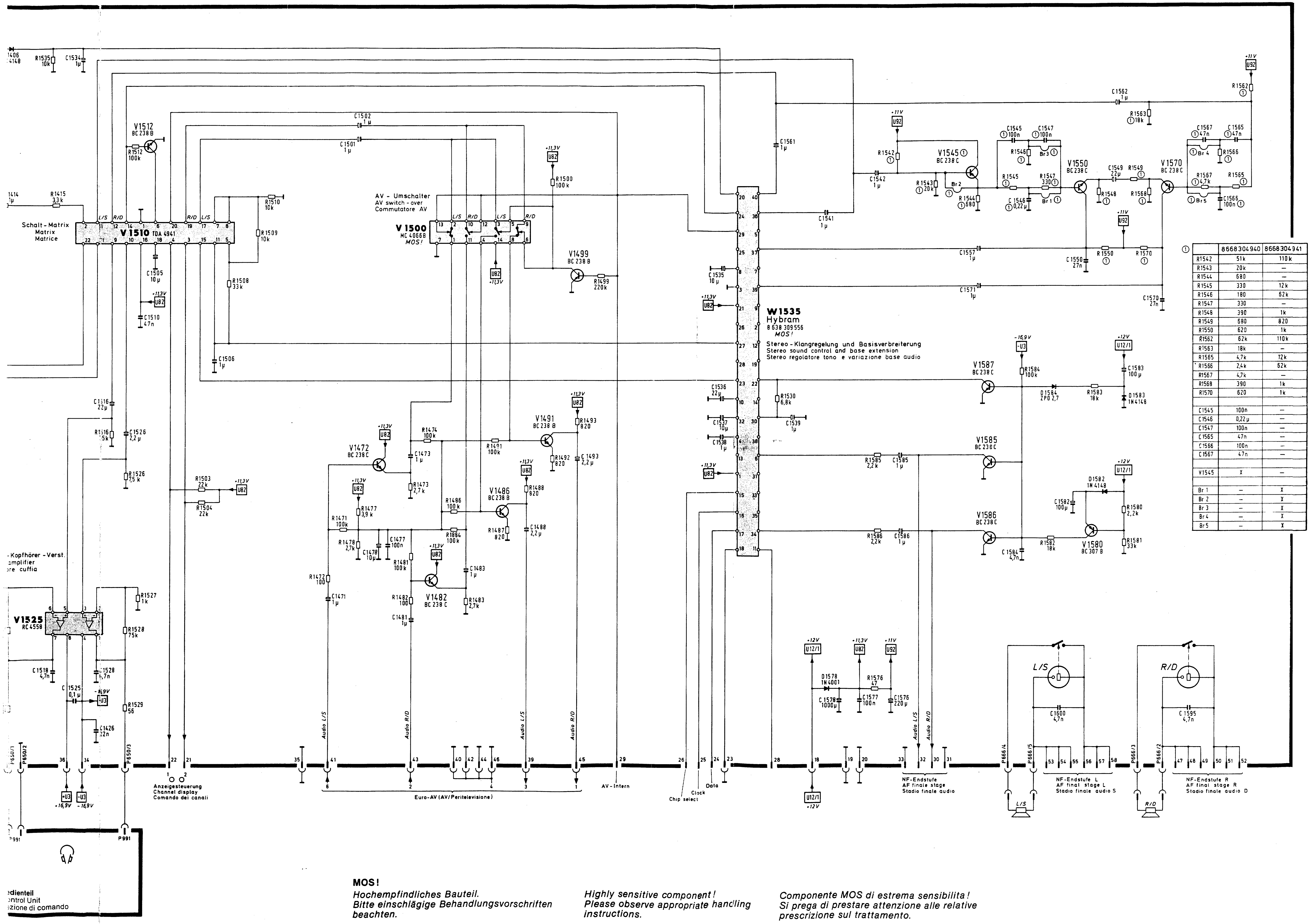
Bedienteil SP 45 + SP 46
Control Unit
Sezione di comando

W 1000 Mikroprozessor/Speicher/Anzeigesteuerung/Infrarot-Empfänger
Microprocessor/Memory/Channel display/Infrared receiver
Microprocessore/Memoria/Comando dei canali/Ricevitore infrarossi


5225
5227
5280
5282
Anzeige-Platte
Display Board
Piastra indicatore
W 1000 Hybram 8 638 309 592
Y001 HA 2151 R
D986, D990 = TLSR 3200
D998, D999 = TLSR 5500
V980 BC 237 B
V975 BC 237 B
V990 BC 327-25
V1000 BC 327-25
V993 BC 237 B
V989 BC 237 B
Q975 4 MHz
Ein/Aus
On/Off
Acceso/Spento
Stand-by
Clock
Chip select (Video)
Chip select (Audio)
Clock
Data
D505 ZPD 24
R505 18k 1,5W
Chassis-Platte
Chassis Board
Piastra chassis
Btx
(Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
Stereo-Decoder-Modul
Modulo decoder stereo
Bedienteil
Control Unit
Sezione di comando
P980/3
P980/12
P980/2
P980/11
P980/10
P980/7
P980/8
P980/6
P980/4
P980/5
P980/9
P505/3
P505/12
P505/2
P505/11
P505/10
P505/7
P505/8
P505/6
P505/4
P505/5
P505/9
P991/1
P991/2
P4110/1
P4110/2
P991/3
P991/5
P991/4
P650/1
P650/3
P650/2
L992
L991
L993
L974
+5V
+10V
+24V
+114V
+140V
+147V
F3891

Stereo-Decoder-Modul / Modulo decoder stereo


4940
4941
4942
Stereo-Decoder-Modul
Modulo decoder stereo
Ton-ZF-Verstärker und Demodulator
IF amplifier and demodulator
Amplificatore MF e demodulatore
V1405 TBA 120 U
V1412 BC 238 B
F1402
F1403 5,5 MHz
D1405 1N 4148
Schalt-Matrix
Matrix
Matrice
V1510
Umschalt-Platte
Switch-over board
Piastra commutazione
P6385/1
Nur für / Only for
Solo per
8 668 304 942
V1425 BC 307 C
V1419 BC 238 C
V1431 BC 238 B
D1419 1N4148
D1420 1N4148
D1431 1N 4148
D1455 1N 4148
V1450 TDA 4940
F1442
F1443 5,74 MHz
L1450
L1462
FM-ZF-Verstärker mit Pilotton Auswertung
FM IF amplifier and evaluation of pilot signal
Amplificatore MF e docodificatore pilota
Ausgangs-Kopfhörer-Verst.
Earphone amplifier
Amplificatore cuffia
V1525 RC 4558
D1406 1N 4148
D520 1N 4148
R520 62k
735
Ton-ZF
Sound IF
Audio MF
HF-ZF-Modul
RF-IF Modul
Modulo AF-MF
Multiton-Modul
Multisound Modul
Modulo audio bistandard
(Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
Bedienteil
Control Unit
Sezione di comando
P531/1
P531/3
P650/1
P650/2
P650/3
P991
+11,3V
U82
+U3
-U3
+16,9V
-16,9V
F3723


Schalt-Matrix
Matrix
Matrice
V 1510 TDA 4941
V1512 BC 238 B
R1512 100k
R1535 10k
C1534 1μ
R1415 3,3k
R1510 10k
R1509 10k
R1508 33k
C1505 10μ
C1510 47n
C1506 1μ
C1502 1μ
C1501 1μ
AV - Umschalter
AV switch - over
Commutatore AV
V 1500 MC 40668 MOS!
V1499 BC 238 B
R1500 100k
R1499 220k
W1535
Hybram
8 638 309 556
MOS!
Stereo - Klangregelung und Basisverbreiterung
Stereo sound control and base extension
Stereo regolatore tono e variazione base audio
C1561 1μ
C1541 1μ
C1542 1μ
C1535 10μ
C1536 22μ
C1537 10μ
C1538 1μ
C1539 1μ
R1530 6,8k
C1557 1μ
C1571 1μ
V1545 ① BC 238 C
R1542
R1543 ① 20k
R1544 ① 680
Br 2
C1545 ① 100n
C1547 ① 100n
R1546 ①
Br 3 ①
R1545 ①
R1547 330 ①
C1546 ① 0,22μ
Br 1 ①
V1550 BC 238 C
C1549 22μ
R1549 ①
R1548 ①
R1568 ①
V1570 BC 238 C
C1567 ① 47n
C1565 ① 47n
① Br 4
R1566 ①
R1567 ① 4,7k
R1565 ①
① Br 5
C1566 100n ①
C1562 1μ
R1563 ① 18k
R1562 ①
C1550 27n
R1550 ①
R1570 ①
C1570 27n
V1587 BC 238 C
R1584 100k
D1584 ZPD 2,7
R1583 18k
D1583 1N 4148
C1583 100μ
V1585 BC 238 C
R1585 2,2k
C1585 1μ
V1586 BC 238 C
R1586 2,2k
C1586 1μ
C1584 4,7n
R1582 18k
V1580 BC 307 B
D1582 1N 4148
C1582 100μ
R1580 2,2k
R1581 33k
V1472 BC 238 C
V1491 BC 238 B
V1486 BC 238 B
V1482 BC 238 C
R1474 100k
R1491 100k
R1493 820
C1493 2,2μ
C1473 1μ
R1473 2,7k
R1492 820
R1477 3,9k
R1471 100k
R1478 2,7k
C1478 10μ
C1477 100n
R1486 100k
R1884 100k
R1487 820
R1488 820
C1488 2,2μ
R1481 100k
C1483 1μ
R1483 2,7k
R1482 100
C1481 1μ
R1472 100
C1471 1μ
R1503 22k
R1504 22k
C1516 22μ
R1516 15k
C1526 2,2μ
R1526 7,5k
Kopfhörer - Verst.
amplifier
ore cuffia
V1525 RC 4558
R1527 1k
R1528 75k
R1529 56
C1518 4,7n
C1525 0,1μ
C1528 4,7n
C1426 22n
+16,9V
-16,9V
+11,3V
+11V
+12V
U82
U92
U12/1
-U3
+U3
D1578 1N 4001
R1576 47
C1578 1000μ
C1577 100n
C1576 220μ
L/S
R/D
C1600 4,7n
C 1595 4,7n
Audio L/S
Audio R/D
Anzeigesteuerung
Channel display
Comando dei canali
Euro-AV (AV/Peritelevisione)
AV - Intern
Chip select
Clock
Data
NF-Endstufe
AF finale stage
Stadio finale audio
NF-Endstufe L
AF final stage L
Stadio finale audio S
NF-Endstufe R
AF final stage R
Stadio finale audio D
P650/2
P650/3
P991
P666/4
P666/5
P666/3
P666/2
Bedienteil
Control Unit
Sezione di comando

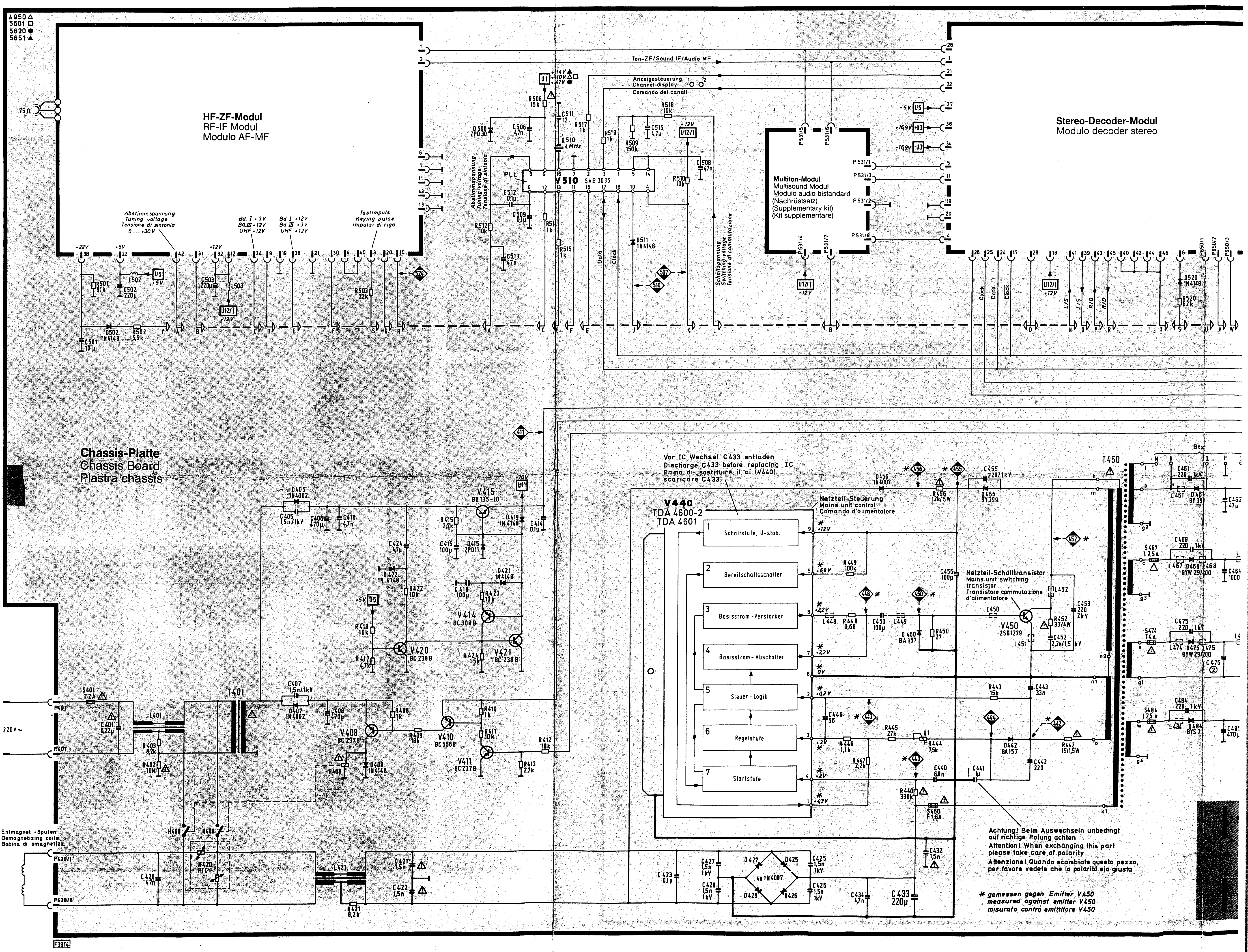
①	8668304940	8668304941
R1542	51k	110k
R1543	20k	–
R1544	680	–
R1545	330	12k
R1546	180	62k
R1547	330	–
R1548	390	1k
R1549	680	820
R1550	620	1k
R1562	62k	110k
R1563	18k	–
R1565	4,7k	12k
R1566	2,4k	62k
R1567	4,7k	–
R1568	390	1k
R1570	620	1k
C1545	100n	–
C1546	0,22μ	–
C1547	100n	–
C1565	47n	–
C1566	100n	–
C1567	47n	–
V1545	X	–
Br 1	–	X
Br 2	–	X
Br 3	–	X
Br 4	–	X
Br 5	–	X

MOS!

Hochempfindliches Bauteil.
Bitte einschlägige Behandlungsvorschriften beachten.

Highly sensitive component!
Please observe appropriate handling instructions.

Componente MOS di estrema sensibilita!
Si prega di prestare attenzione alle relative prescrizione sul trattamento.


4950 △
5601 □
5620 ●
5651 ▲
75 Ω
HF-ZF-Modul
RF-IF Modul
Modulo AF-MF
Abstimmspannung
Tuning voltage
Tensione di sintonia
0.....+30 V
Bd. I +3V
Bd. III +12V
UHF +12V
Bd. I +12V
Bd. III +3V
UHF +12V
Tastimpuls
Keying pulse
Impulsi di riga
Ton-ZF/Sound IF/Audio MF
Anzeigesteuerung
Channel display
Comando dei canali
PLL
V 510
SAB 3036
Data
Clock
Schaltspannung
Switching voltage
Tensione di commutazione
Multiton-Modul
Multisound Modul
Modulo audio bistandard
(Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
Stereo-Decoder-Modul
Modulo decoder stereo
Chassis-Platte
Chassis Board
Piastra chassis
220V~
Entmagnet.-Spulen
Demagnetizing coils
Bobina di smagnetizz.
PTC
V 415
BD 135-10
V 414
BC 308 B
V 420
BC 238 B
V 421
BC 238 B
V 408
BC 237 B
V 410
BC 556 B
V 411
BC 237 B
T 401
Vor IC Wechsel C433 entladen
Discharge C433 before replacing IC
Prima di sostituire il ci (V440) scaricare C433
V 440
TDA 4600-2
TDA 4601
Netzteil-Steuerung
Mains unit control
Comando d'alimentatore
1 Schaltstufe, U-stab.
2 Bereitschaftsschalter
3 Basisstrom-Verstärker
4 Basisstrom-Abschalter
5 Steuer-Logik
6 Regelstufe
7 Startstufe
Netzteil-Schalttransistor
Mains unit switching transistor
Transistore commutazione d'alimentatore
V 450
2SD 1279
T 450
Btx
4x 1N4007
C 433
220µ
Achtung! Beim Auswechseln unbedingt auf richtige Polung achten
Attention! When exchanging this part please take care of polarity.
Attenzione! Quando scambiate questo pezzo, per favore vedete che la polarità sia giusta
* gemessen gegen Emitter V450
measured against emitter V450
misurato contro emittitore V450
F 3814

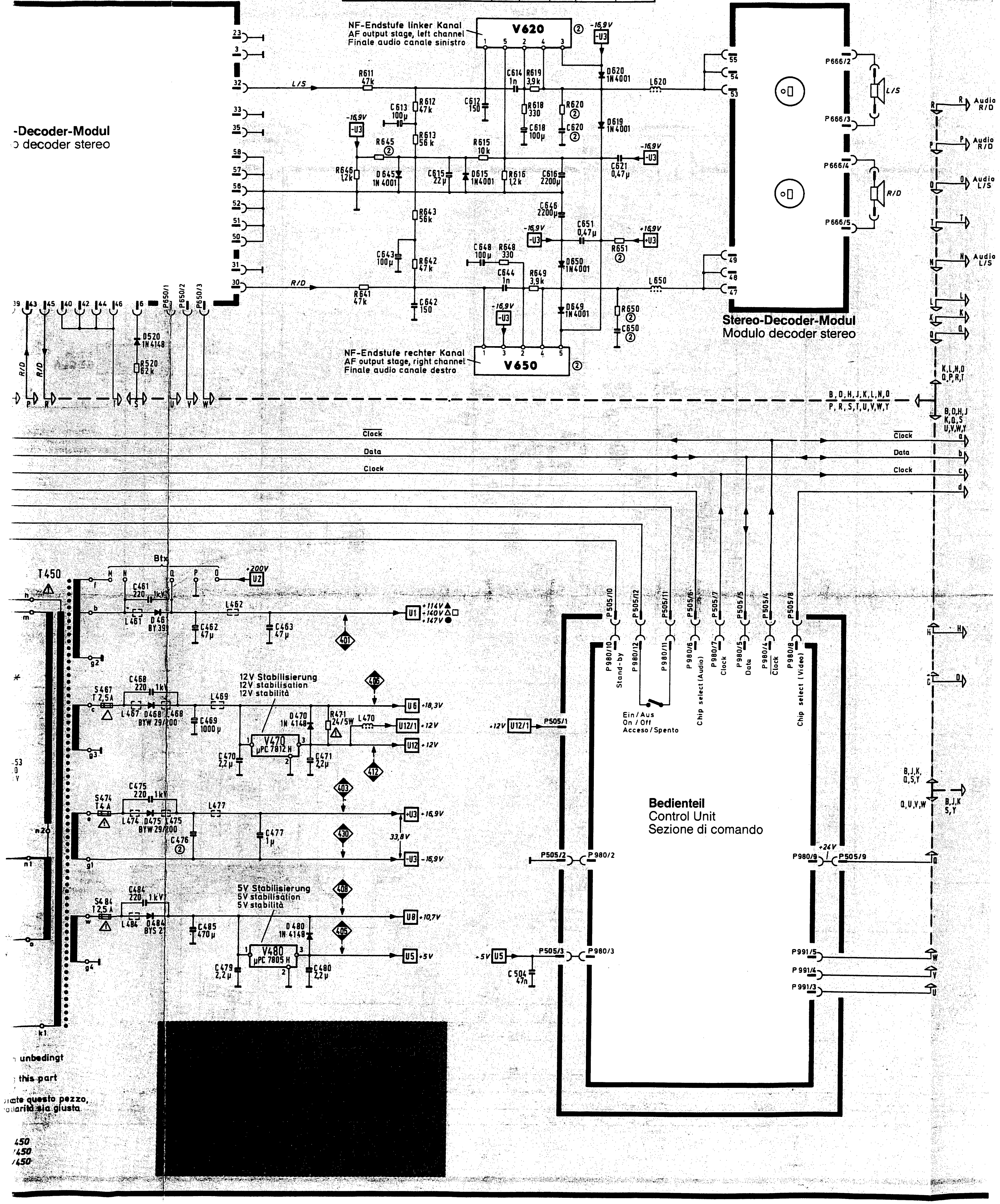
V 440

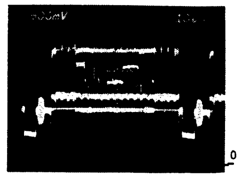
1. Voltage Reference Switching Stage
2. Standby Switch
3. Base Current Amplifier
4. Base Current Cut-off
5. Logic Control
6. Control Stage
7. Starting Stage

1. Stadio commutazione V-stabilizzata
2. Interruttore stand-by
3. Amplif. corrente di base
4. Interruttore corrente di base
5. Pilota logico
6. Stadio di regolazione
7. Stadio di partenza

②

	R620	C620	R645	R650	C650	R651	C476	V620	V650
2 x 20 W	1	0,22µ	10k	1	0,22µ	2,7/9W	470µ	TDA 2030	TDA 2030
2 x 30 W	4,7	0,1µ	9,1k	4,7	0,1µ	1,2/5W	1000µ	TDA 2040	TDA 2040


-Decoder-Modul
› decoder stereo
NF-Endstufe linker Kanal
AF output stage, left channel
Finale audio canale sinistro
V620
②
-16,9V
-U3
L/S
R611 47k
C613 100µ
R612 47k
R613 56k
C612 150
C614 1n
R619 3,9k
R618 330
C618 100µ
R620 ②
C620 ②
D620 1N4001
D619 1N4001
L620
R645 ②
R646 1,2k
D645 1N4001
C615 22µ
D615 1N4001
R615 10k
R616 1,2k
C616 2200µ
C621 0,47µ
C646 2200µ
C651 0,47µ
R643 56k
C643 100µ
R642 47k
C648 100µ
R648 330
C644 1n
R649 3,9k
R651 ②
+16,9V
+U3
D650 1N4001
D649 1N4001
R641 47k
R/D
C642 150
L650
R650 ②
C650 ②
NF-Endstufe rechter Kanal
AF output stage, right channel
Finale audio canale destro
V650
②
D520 1N4148
R520 62k
P650/1
P650/2
P650/3
Stereo-Decoder-Modul
Modulo decoder stereo
P666/2
P666/3
P666/4
P666/5
L/S
R/D
Audio R/D
Audio R/D
Audio L/S
Audio L/S
K,L,N,O
O,P,R,T
B,D,H,J,K,L,N,O
P,R,S,T,U,V,W,Y
B,D,H,J
K,O,S
U,V,W,Y
Clock
Data
Clock
Clock
Data
Clock
Btx
T450
+200V
U2
C461 220
1kV
L461
D461 BY399
L462
C462 47µ
C463 47µ
U1
+114V ▲
+140V △□
+147V ●
401
C468 220
1kV
S467 T 2,5A
L467
D468 BYW 29/200
L468
C469 1000µ
L469
12V Stabilisierung
12V stabilisation
12V stabilità
V470
µPC 7812 H
D470 1N4148
R471 24/5W
L470
C470 2,2µ
C471 2,2µ
U6 +18,3V
U12/1 +12V
U12 +12V
406
412
C475 220
1kV
S474 T4 A
L474
D475 BYW 29/200
L475
L477
C476 ②
C477 1µ
403
430
33,8V
+U3 +16,9V
-U3 -16,9V
C484 220
1kV
S484 T2,5 A
L484
D484 BYS 21
C485 470µ
5V Stabilisierung
5V stabilisation
5V stabilità
V480
µPC 7805 H
D480 1N4148
C479 2,2µ
C480 2,2µ
U8 +10,7V
U5 +5V
408
405
P505/10
P505/12
P505/11
P505/6
P505/7
P505/5
P505/4
P505/8
P980/10
P980/12
P980/11
P980/6
P980/7
P980/5
P980/4
P980/8
Stand-by
Ein / Aus
On / Off
Acceso / Spento
Chip select (Audio)
Clock
Data
Clock
Chip select (Video)
+12V
U12/1
P505/1
Bedienteil
Control Unit
Sezione di comando
P505/2
P980/2
+24V
P980/9
P505/9
+5V
U5
P505/3
P980/3
C504 47n
P991/5
P991/4
P991/3
B,J,K,
O,S,Y
O,U,V,W
B,J,K
S,Y
unbedingt
this part
iate questo pezzo,
olarità sia giusta
450
450
450

341


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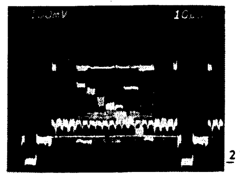

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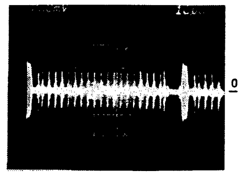

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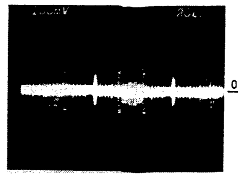

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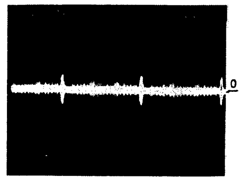

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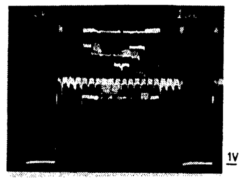

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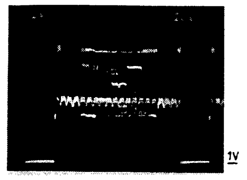

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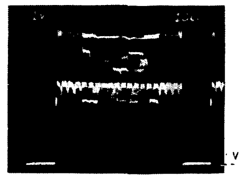

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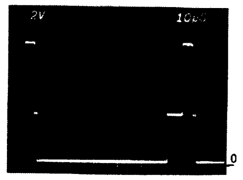

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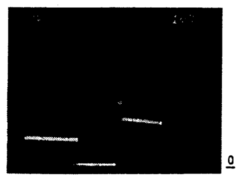

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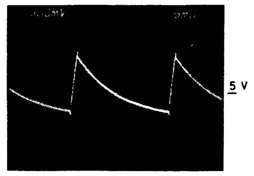

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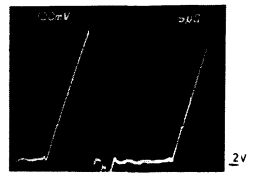

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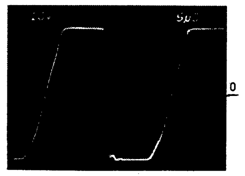

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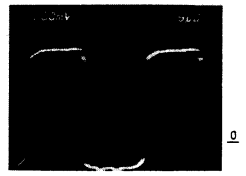

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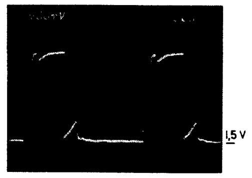

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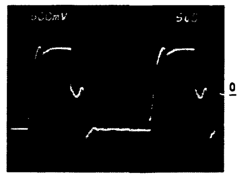

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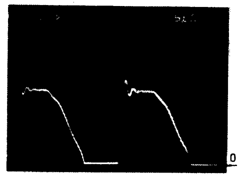

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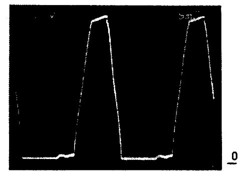

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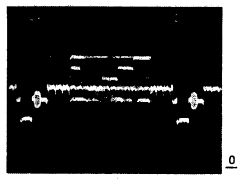

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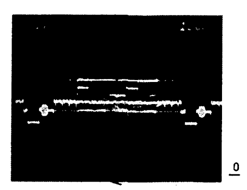

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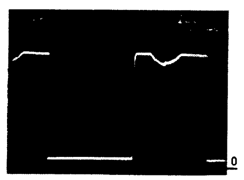

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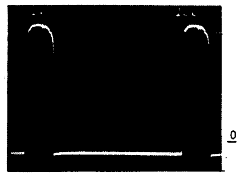

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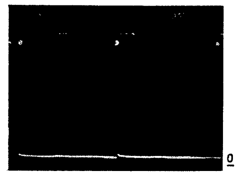

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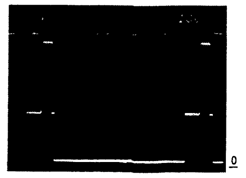

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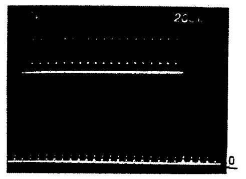

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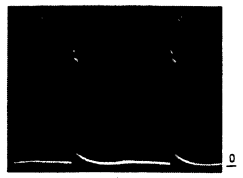

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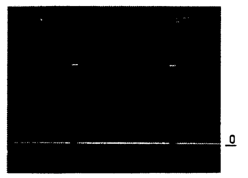

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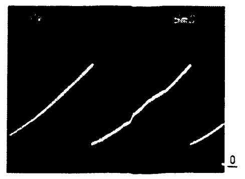

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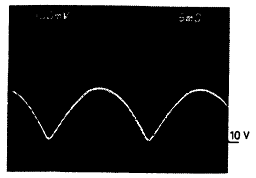

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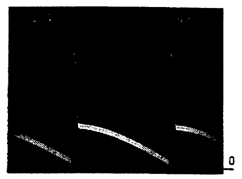

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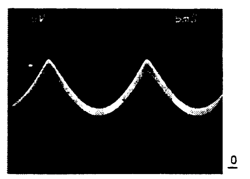

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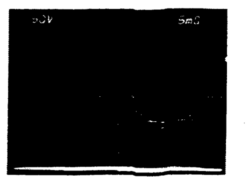

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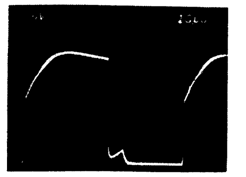

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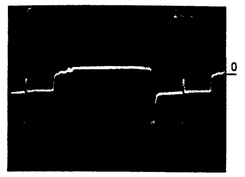

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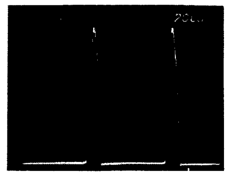

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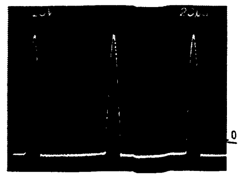

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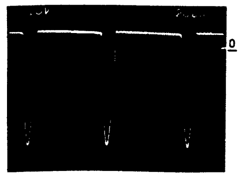

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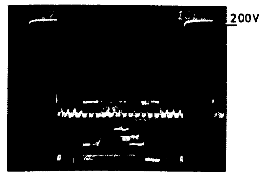

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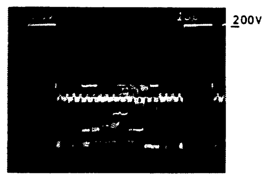

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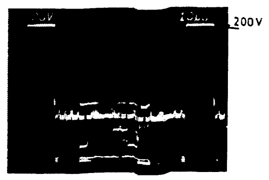

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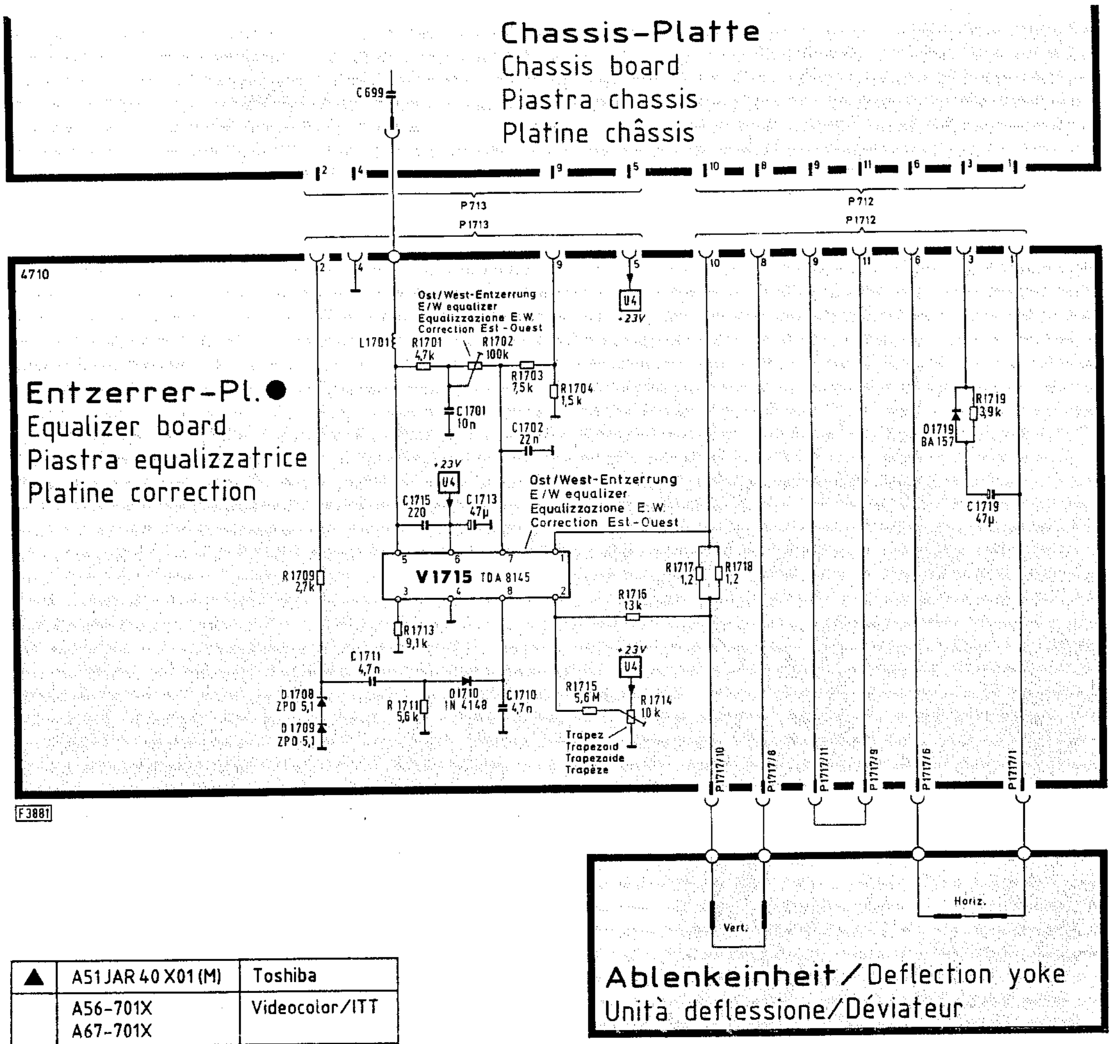
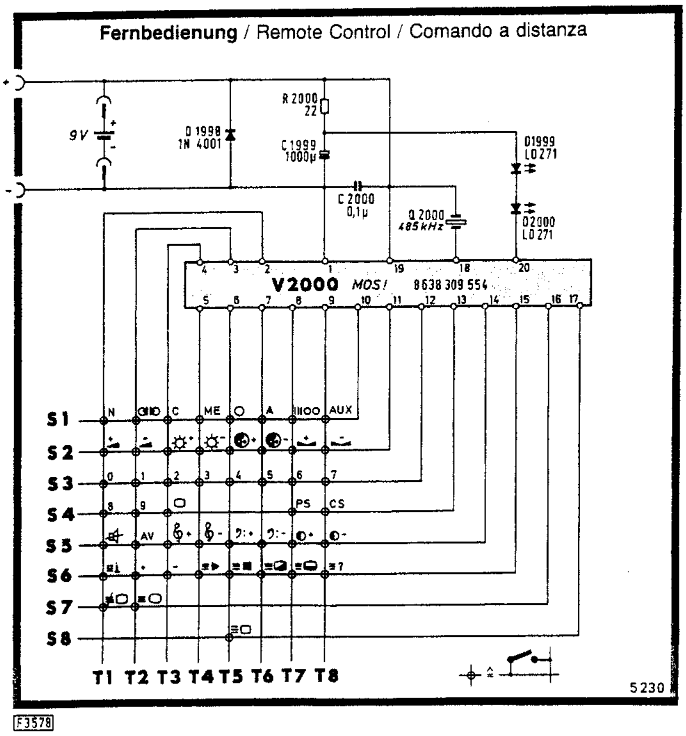

Chassis-Platte
Chassis board
Piastra chassis
Platine châssis
C699
P713
P1713
P712
P1712
4710
Entzerrer-Pl. ●
Equalizer board
Piastra equalizzatrice
Platine correction
Ost/West-Entzerrung
E/W equalizer
Equalizzazione E.W.
Correction Est-Ouest
L1701
R1701 4,7k
R1702 100k
R1703 7,5k
R1704 1,5k
C1701 10n
C1702 22n
U4
+23V
C1715 220
C1713 47µ
V1715 TDA 8145
R1709 2,7k
R1713 9,1k
C1711 4,7n
D1708 ZPD 5,1
D1709 ZPD 5,1
R1711 5,6k
D1710 1N 4148
C1710 4,7n
R1716 13k
R1715 5,6M
R1714 10k
Trapez
Trapezoid
Trapezoide
Trapèze
R1717 1,2
R1718 1,2
R1719 3,9k
D1719 BA 157
C1719 47µ
P1717/10
P1717/8
P1717/11
P1717/9
P1717/6
P1717/1
Vert.
Horiz.
Ablenkeinheit/Deflection yoke
Unità deflessione/Déviateur

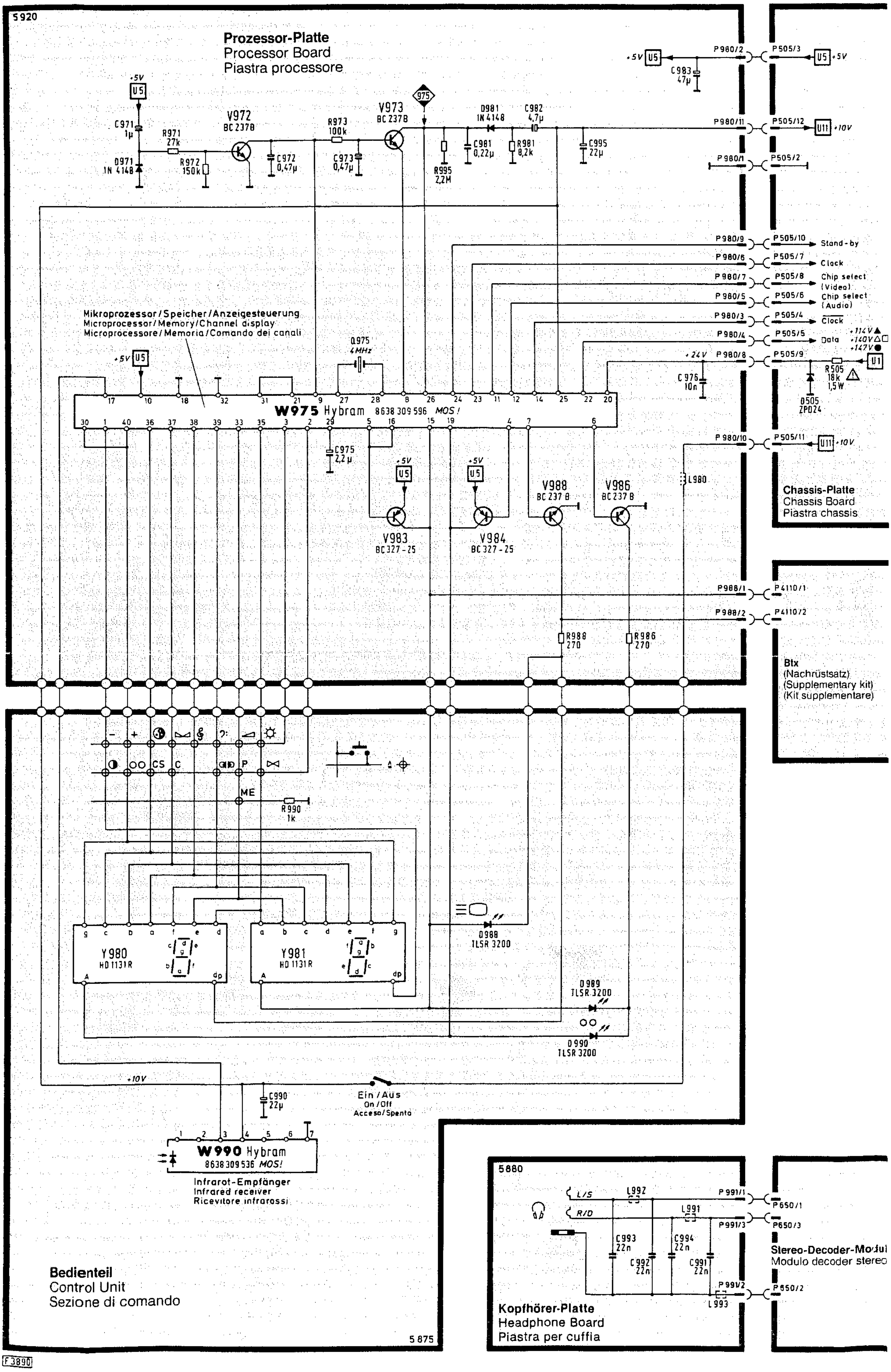
F3881

▲	A51 JAR 40 X01 (M)	Toshiba
△	A56-701X A67-701X	Videocolor/ITT
	560 ETB 22-TC04 670 C2B 22-TC04	Toshiba
	A59 EAF 00X01 A66 EAF 00X01	ITT/SEL
●	A59 EAK 00X01 A66 EAK 00X01	Valvo
□	A59 EAS 00X01 A66 EAS 00X01	Videocolor


Fernbedienung / Remote Control / Comando a distanza
+
-
9V
D1998 1N 4001
R2000 22
C1999 1000µ
C2000 0,1µ
Q2000 485kHz
D1999 LD271
D2000 LD271
V2000 MOS! 8638 309 554
S1
S2
S3
S4
S5
S6
S7
S8
N
C
ME
A
AUX
0
1
2
3
4
5
6
7
8
9
PS
CS
AV
T1 T2 T3 T4 T5 T6 T7 T8
5230

F3578

Bedienteil SP 55
Control Unit
Sezione di comando


5920
Prozessor-Platte
Processor Board
Piastra processore
+5V U5
C971 1µ
R971 27k
D971 1N 4148
R972 150k
V972 BC 237B
C972 0,47µ
R973 100k
C973 0,47µ
V973 BC 237B
975
D981 1N 4148
C982 4,7µ
C981 0,22µ
R981 8,2k
R995 2,2M
C995 22µ
C983 47µ
+5V U5
P980/2
P505/3
U5 +5V
P980/11
P505/12
U11 +10V
P980/1
P505/2
P980/9
P505/10
Stand-by
P980/6
P505/7
Clock
P980/7
P505/8
Chip select (Video)
P980/5
P505/6
Chip select (Audio)
P980/3
P505/4
Clock
P980/4
P505/5
Data
+114V▲
+140V△□
+147V●
+24V
P980/8
P505/9
U1
C976 10n
R505 18k 1,5W
D505 ZPD24
Mikroprozessor/Speicher/Anzeigesteuerung
Microprocessor/Memory/Channel display
Microprocessore/Memoria/Comando dei canali
Q975 4MHz
+5V U5
W975 Hybram 8638 309 596 MOS!
C975 2,2µ
P980/10
P505/11
U11 +10V
L980
+5V U5
+5V U5
V983 BC 327-25
V984 BC 327-25
V988 BC 237 B
V986 BC 237 B
Chassis-Platte
Chassis Board
Piastra chassis
P988/1
P4110/1
P988/2
P4110/2
R988 270
R986 270
Btx
(Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
CS
C
P
ME
R990 1k
Y980 HD 1131R
Y981 HD 1131R
D988 TLSR 3200
D989 TLSR 3200
D990 TLSR 3200
+10V
C990 22µ
Ein/Aus
On/Off
Acceso/Spento
W990 Hybram 8638 309 536 MOS!
Infrarot-Empfänger
Infrared receiver
Ricevitore infrarossi
Bedienteil
Control Unit
Sezione di comando
5875
5880
L/S
R/D
L992
L991
C993 22n
C994 22n
C992 22n
C991 22n
L993
P991/1
P991/3
P991/2
P650/1
P650/3
P650/2
Stereo-Decoder-Modul
Modulo decoder stereo
Kopfhörer-Platte
Headphone Board
Piastra per cuffia

F3890

● BLAUPUNKT

BOSCH Gruppe

Farbfernseher
Colour TV
Televisore a colori

Chassis 100-30
Stereo-Decoder

Bedienteil SP 45 + SP 46 + SP 55 +
SQ 25 (Monza und Columbia)
Control Unit
Sezione di comando

Kundendienstschrift · Service Manual
Istruzioni di assistenza

7 665 . . .

Diese Geräte tragen das VDE-Zeichen und erfüllen daher die einschlägigen VDE-Bestimmungen. Um die Sicherheit der Geräte zu erhalten, müssen die mit einem solchen Symbol in den Kundendienst-Unterlagen gekennzeichneten Bauelemente durch Originalteile ersetzt werden.

Wichtig ist auch, daß Bauelemente in gleicher Lage wieder eingesetzt werden. ⚠

Achtung! Nach optimalen Einstellungen im Bildröhrenwerk bilden Bildröhre und Ablenksystem eine festverbundene Einheit.

Es erlischt die Bildröhren-Garantie, wenn
- die Lage des Ablenksystems oder der Korrekturmagnete verändert wird.
- Befestigungsmuttern oder Versiegelungen gelöst werden.

These sets are provided with the VDE sign, thus fulfilling the VDE regulations. In order to maintain the safety of the sets, the components marked with a suchlike symbol in the service manuals must be replaced by original parts.

It is also important that components are placed in the same position. ⚠

Note! After optimum adjustments in the picture tube factory, picture tube and deflection yoke represent a firmly connected unit.

Picture tube warranty is expiring in case
- the position of the deflection yoke or the correction magnets is changed,
- mounting nuts or sealings are loosened.

Gli apparecchi sono contrassegnati con il marchio VDE e quindi corrispondono a queste norme. Per garantire la sicurezza degli apparecchi, i componenti contrassegnati con il simbolo riportato a destra e rilevabile dalle istruzioni di manutenzione, devono essere sostituiti con componenti originali.

E'importante che i componenti vengano inseriti di nuovo nella loro posizione originale. ⚠

Attenzione: Dopo la regolazione ottimale effettuata in sede di fabbricazione il cinescopio ed il giogo di deflessione formano un sistema unico. E' quindi vietato:

- spostare i componenti i posti sul collo del cinescopio.
- allentare le viti di tali componenti.

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Achtung!
Unter der Chassis-Platte,
dort wo das Netzkabel eingesteckt ist,
steht auch dann Netzspannung,
wenn der Ein/Ausschalter
ausgeschaltet ist.

Attention!
Below the chassis board,
where the mains cable is plugged in,
mains voltage is also present
when the On/Off switch
is in „off“ position.

Attenzione!
Sotto la piastra del telaio nel
punto in cui e inserito il cavo
d'alimentazione si trova sempre
sotto tensione anche quando
e'spento l'interruttore di rete.

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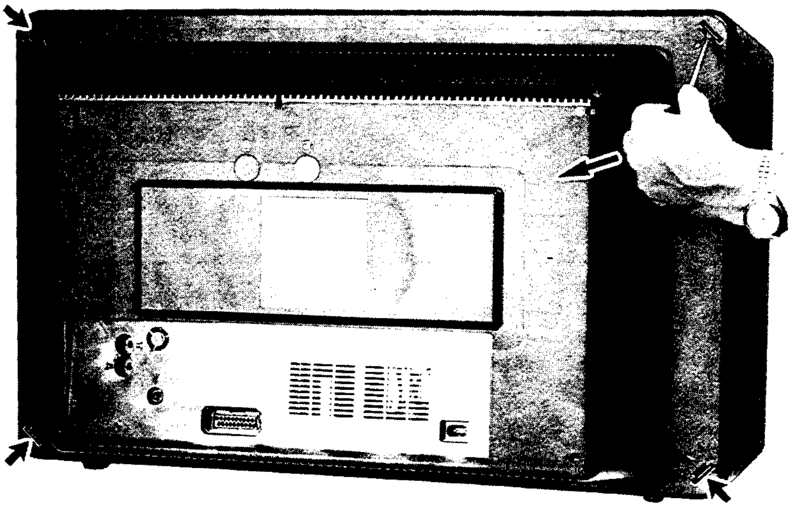
Änderungen vorbehalten
Modifications reserved
Con riserva di modifiche

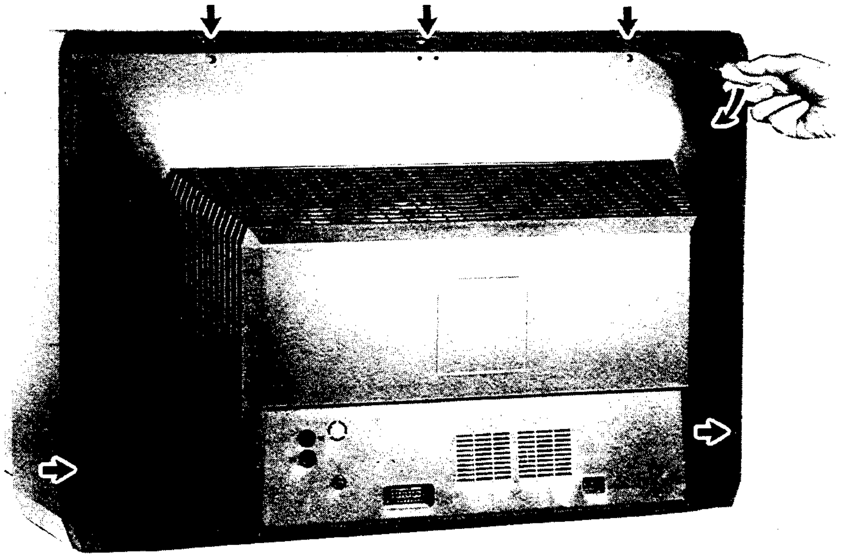
6 D85 464 011
Ausgabe 644

Abnehmen der Rückwand
Removal of Rear Panel
Smontaggio dello schienale

SP 55



SP 45
SQ 25
Columbia



Was kann die Ursache sein?

1. **Das Gerät läßt sich nicht in Bereitschaft schalten und es schaltet sich ein, wenn bei gedrücktem Ein/Ausschalter der Netzstecker eingesteckt wird.**

   Mögliche Ursache:
   Bereitschaftsfunktion ist abgeschaltet.
   Abhilfe:
   Gerät in Servicemode schalten.
   Dazu Gerät ausschalten. Taste ME drücken und festhalten. Gerät wieder einschalten und wenn Anzeige erscheint, Taste ME loslassen.
   Dann Taste OO (Zwei-Kanal-Ton) drücken.
   Gerät wieder ausschalten.
   Funktion i. O.?
   Wenn nicht, Fehler im Gerät.

Troubleshooter

1. **The set may not be switched to stand-by and is switched on if the mains plug is connected while the on/off switch in pressed in.**

   Possible cause:
   Stand-by function is deactivated.
   Corrective action:
   Switch the set to service mode.
   In order to do this, switch the set off. Keep the ME button pressed while you switch the set on. As soon as the display appears, release the ME button.
   Now press button OO (two-channel sound).
   Switch the set off again.
   Does the set work properly?
   If not, the set is defective.

Quale può essere la causa?

1. **L'apparecchio non si lascia commutare sulla condizione di Stand-By e si riaccende inserendo la spina nella presa di corrente con interruttore di rete premuto.**

   Causa possibile:
   La funzione Stand-By è disinserita.
   Rimedio:
   Commutare l'apparecchio su servicio.
   Allo scopo spegnere l'apparecchio.
   Premere il tasto ME e tenerlo premuto
   Riaccendere l'apparecchio e quando compare l'indicazione, liberare il tasto ME.
   Premere indi il tasto OO (Per audio bicanale).
   Spegnere di nuovo l'apparecchio.
   La funzione è ora in ordine?
   Se invece non lo fosse vi è un difetto nell'apparecchio.

2. Auf einem Programmplatz kommt kein Ton, obwohl Lautstärke aufgeregelt ist und Taste 🔇 nicht gedrückt wurde.

Mögliche Ursache:
Programmplatz ist auf andere Ton-Norm (BFBS oder US) geschaltet.

Abhilfe:
Gerät in Servicemode schalten. Siehe unter 1.
Taste P, am Bedienteil, sooft drücken, bis —0 erscheint.
Gerät wieder ausschalten.
Funktion i. O.?
Wenn nicht, Fehler im Gerät.

Es läßt sich kein Programmplatz mit zweistelliger Zahl (10-39) einschalten.

Mögliche Ursache:
Es ist auf keinem dieser Programmplätze ein Sender gespeichert.

Abhilfe:
Einen Programmplatz belegen.
Dazu beliebigen Programmplatz 1-9 einschalten. Taste C drücken. Es erscheinen zwei waagerechte Striche. Kanal eingeben (immer zweistellig). Taste ME drücken und innerhalb 5 Sek. gewünschten Programmplatz mit zweistelliger Zahl mit den Nummerntasten eingeben.
Ist der Programmplatz im Zehnerbereich, lassen sich nun alle Programmplätze 10-19 einschalten.
Ist der Programmplatz im Zwanzigerbereich, lassen sich nun alle Programmplätze 10-29 einschalten.
Ist der Programmplatz im Dreißigerbereich, lassen sich alle Programmplätze 10-39 einschalten.

Sie wollen Programmplatz 1, 2 oder 3 wählen, und es blinkt die gewählte Zahl erst in der Zehnerstelle der Anzeige, bevor das Gerät umschaltet.

Mögliche Ursache:
Es sind Programmplätze mit zweistelliger Zahl (10-39) belegt.

Abhilfe:
Entweder 01, 02 oder 03 wählen oder die belegten Programmplätze zwischen 10 und 39 „leeren“.
Das ist auf zwei Arten möglich:

1. Programmplatz 10 einschalten.
   Taste A drücken.
   Wenn in der Anzeige **nicht** 00 steht, Taste C drücken.
   Es erscheinen zwei waagerechte Striche.
   Mit den Zifferntasten 00 eingeben und sofort ME drücken.
   Auf diese Weise alle Programmplätze durchgehen.
2. Gerät in Servicemode schalten (Siehe 1.)
   Programmplatz AV0 (Taste AV und 0) einschalten. Taste C drücken.
   Es erscheinen zwei waagerechte Striche.
   Mit den Zifferntasten 99 eingeben und sofort ME drücken und 5 Sek. warten.
   Damit sind alle Programmplätze „leer“.
   Auch 1-9.
   Gerät ausschalten und wieder ein. Die Programmplätze 1-9 wieder mit Sendern belegen.

Programm-Umschaltung funktioniert nicht.

Mögliche Ursache:
Es wurde versehentlich auf die Videotext-Taste gedrückt, obwohl das Gerät keinen Videotext-Decoder hat.

Abhilfe:
Taste ▢ drücken und damit wieder auf Fernsehbetrieb schalten.

2. No sound is heard on a program site although the volume has been turned up and the button 🔇 was not pressed in.

Possible cause:
The program site is switched to a different sound standard (BFBS or US).

Corrective action:
Switch the set to service mode. Refer to point 1 on how to do this.
Press button P at the control unit until —0 appears.
Switch the set off again.
Does the set work properly?
If not, the set is defective.

3. No two-digit program site (10-39) may be switched on.

Possible cause:
No station is stored on any of these program sites.

Corrective action:
Store a station on a program site.
In order to do this, switch to any of program sites 1-9.
Press button C.
You will see two horizontal lines. Enter the channel (always using two digits).
Press the ME button and within 5 seconds enter the desired program site by means of the digital buttons (always using two digits).
If you choose a program site from 10-19, all program sites from 10-19 may now be switched on.
If you choose a program site from 10-29, all program sites from 10-29 may be switched on.
If you choose a program site from 30-39, all program sites from 10-39 may be switched on.

4. You wish to select program site 1, 2, or 3 and the selected number blinks in the tens place of the display before the set switches over.

Possible cause:
Two-digit program sites (10-39) are occupied.

Corrective action:
Either select 01, 02, or 03 or "empty" the occupied program sites between 10 and 39.
This may be done in two ways:

1. Switch to program site 10.
   Press button A.
   If the display does **not** indicate 00, press button C.
   Two horizontal lines will appear. Use the digital buttons to enter 00, and press ME immediately.
   Proceed in this manner with all program sites.
2. Switch the set to service mode.
   On how to do this, refer to point 1. Switch to program site AV0 (button AV and 0).
   Press button C.
   Two horizontal lines appear. Enter 99 by means of the digital buttons and press ME immediately.
   Wait for 5 seconds.
   All program sites are now "empty", including those from 1 to 9.
   Switch the set off and back on. Store stations again on program sites 1-9.

5. The program switchover does not work

Possible cause:
The videotext button was pressed by mistake, although the set is not equipped with a videotext decoder.

Corrective action:
Press button ▢ in order to switch back to TV mode.

2. Su un numero programma non si riesce ad ascoltare l'audio nonostante il volume sia regolato in maniera sufficientemente alta ed il tasto 🔇 non sia stato premuto.

Causa possibile:
Il numero del programma prescelto è commutato su di un altra norma audio (BFBS oppure US).

Rimedio:
Commutare l'apparecchio su servizio (Vedasi punto 1).
Premere ripetutamente il tasto P sulla sezione di comando sino a far comparire la cifra „—0“.
Spegnere di nuovo l'apparecchio.
La funzione è ora in ordine?
Se invece non lo fosse vi è un difetto nell'apparecchio.

3. Non si riesce a selezionare alcun programma da 10 a 39.

Causa possibile:
Non è memorizzata alcuna emittente su questi programmi.

Rimedio:
Memorizzare una emittente.
Allo scopo selezionare un numero a piacere da 1 a 9.
Premere il tasto C.
Sull'indicatore compaiono due trattini orizzontali.
Introdurre il numero del canale (Sempre con 2 cifre).
Premere il tasto ME e nell'arco di 5 secondi, introdurre il numero di programma sul quale si desidera memorizzare il canale ricevuto (Sempre con 2 cifre).
Se il numero-programma si trova nella gamma delle decine si lasciano selezionare tutti i programmi da 10 a 19.
Se il numero-programma si trova nella gamma della ventina si lasciano selezionare tutti i programmi da 10 a 29.
Se il numero-programma si trova nella gamma della trentina si lasciano selezionare tutti i programmi da 10 a 39.

4. Se vengono selezionati i programmi 1, 2 oppure 3 la cifra corrispondente lampeggia inizialmente sulla parte dell'indicatore riservata alle decine.

Causa:
Sono memorizzati i numeri-programma con due cifre (10-39).

Rimedio:
Selezionare questi programmi con 01, 02, 03 oppure: „Svuotare“ i programmi occupati da 10 a 39.
Questa operazione può essere effettuata in due modi:

1. Selezionare il programma numero 10.
   Premere il tasto A.
   Se sull'indicatore **non compare** la cifra „00“ premere il tasto C.
   Sull'indicatore compaiono ora due trattini orizzontali.
   Con i tasti numerati introdurre la cifra „00“ e premere immediatamente il tasto ME.
   In egual maniera esplorare tutti gli altri numeriprogramma.
2. Commutare l'apparecchio su servizio (Vedasi punto 1).
   Inserire il programma AV 0 (Tasti AV e 0).
   Premere il tasto C.
   Compaiono due trattini orizzontali.
   Con i tasti numerati introdurre la cifra 99 e premere immediatamente il tasto ME ed attendere 5 secondi.
   Con questo sono svuotati tutti i numeriprogramma compresi quelli da 1 a 9.
   Spegnere l'apparecchio e riaccenderlo.
   Memorizzare di nuovo i programmi da 1 a 9.

5. La commutazione dei programmi non funziona.

Causa possibile:
E' stato premuto inavvertitamente il tasto per Televideo anche se l'apparecchio non è provvisto di decodificatore.

Rimedio:
Premere il tasto ▢ e con questo commutare di nuovo su funzionamento TV.

Service Einstellungen

Die Service-Einstellungen nur am betriebswarmen Gerät vornehmen.
(Bildröhrentyp ▲ △ □ ● beachten).

Einstellung Spannung U 1

U 1 = + 114 V ▲
U 1 = + 140 V △ □
U 1 = + 144 V ●

Sender empfangen. Kontrast und Helligkeit auf Minimum einstellen. Röhrenvoltmeter an Meßpunkt 401 und Masse. Mit **R 444** Spannung einstellen.

Vertikalfrequenz TV

V 540 / Pin 9 an Masse
Frequenzzähler an Meßpunkt 554
f = 45 Hz mit **R 562** einstellen.
Kurzschluß aufheben.

Horizontalfrequenz TV

Signal empfangen.
V 540 / Pin 12 an Masse
Frequenzzähler an Pin 4
f = 15625 Hz mit **R 540** einstellen.
Kurzschluß aufheben.

Ost-West-Entzerrung TV

Mit **R 692**
vertikale Gitterlinien
links und rechts am Bildrand
auf möglichst
geradlinigen Verlauf einstellen.

Bildbreite TV ○

Mit **L 699** einstellen.

Vertikale Linearität ☰

Gittertestbild einspeisen.
Mit **R 570** Kästchen am oberen
und unteren Bildrand
auf gleiche Höhe einstellen.

Folgende Einstellungen werden am Bedienteil vorgenommen.

Bildhöhe TV
Bildlage vertikal TV
Bildbreite TV △ □ ●
Bildlage horizontal TV

Das Gerät muß dazu folgendermaßen umgeschaltet werden.
- Gerät mit Ein-/Ausschalter ausschalten.
- Taste ME solange gedrückt halten bis mit Ein-/Ausschalter, Gerät wieder eingeschaltet ist und die Anzeige erscheint.

TV

Taste ☼ kurz drücken
und dann mit Taste +
Bildhöhe verkleinern
oder mit Taste −
Bildhöhe vergrößern.
Danach ME drücken.

TV

Taste ⋈ kurz drücken
und dann mit Taste +
Bild nach oben
oder mit Taste −
Bild nach unten verschieben.
Danach ME drücken.

TV △ □ ●

Taste ◕ kurz drücken
und dann mit Taste +
Bildbreite verringern
oder mit Taste −
Bildbreite vergrößern
Danach ME drücken.

TV

Taste ◺ kurz drücken
und dann mit Taste +
Bild nach links
oder mit Taste −
Bild nach rechts verschieben.
Danach ME drücken.

Achtung! Bitte nicht vergessen, auf normale Fernbedienbarkeit zurückzuschalten.
Das geschieht durch ein einmaliges Ausschalten des Gerätes mit dem Ein-/Ausschalter.

Service Adjustments

The service adjustments may be carried out at a set warmed up to normal operating temperature only.
(Note picture tube ▲ △ □ ●).

Adjustment voltage U 1

U 1 = + 114 V ▲
U 1 = + 140 V △ □
U 1 = + 144 V ●

Receive transmitter. Set contrast and brightness to minimum. VTM to measuring point 401 and ground. With **R 444** adjust voltage.

Vertical frequency TV

V 540 / pin 9 to ground
Frequency counter at test point 554.
Set to f = 45 Hz with **R 562.**
Remove short-circuit.

Horizontal frequency TV

Receive signal
V 540 /pin 12 to ground
Frequency counter at pin 4.
Set to f = 15,625 Hz with **R 540.**
Remove short-circuit.

East-West distortion correction TV

Use **R 692**
to set vertical grid lines
at the right and left picture edge
to the straightest course possible.

Picture width TV ○

With **L 699.**

Vertical linearity ☰

Feed in grid pattern.
Use **R 570** to adjust the squares
at the upper and lower picture edge
to the same height.

The following adjustments are made at the control unit.

Picture height TV
Vertical centering TV
Picture width TV △ □ ●
Horizontal centering TV

For this purpose the set must be switched over as follows.
- Switch the set off by pressing the On/off switch.
- Keep the ME button pressed while pressing the On/off switch again. The display reappears.

TV

Press the ☼ button shortly
and reduce picture height
by pressing the + button,
or enlarge picture height
by pressing the − button.
Afterwards press ME.

TV

Press the ⋈ button shortly
and move picture upwards
by pressing the + button,
or move picture downwards
by pressing the − button.
Afterwards press ME.

TV △ □ ●

Press the ◕ button shortly
and reduce picture width
by pressing the + button,
or enlarge picture width
by pressing the − button.
Afterwards press ME.

TV

Press the ◺ button shortly
and move the picture to the left
by pressing the + button,
or move the picture to the right
by pressing the − button.
Afterwards press ME.

Attention! Please do not forget to switch back to normal remote control mode.
This is achieved by switching the unit off once by pressing the On/off switch.

Regolazioni di servizio

Le regolazioni di servizio possone essere effettuato solo ad apparecchio caldo.
(Vede cinescopio ▲ △ □ ●).

Regolazione della tensione U 1

U 1 = + 114 V ▲
U 1 = + 140 V △ □
U 1 = + 144 V ●

Ricevere un'emittente. Contrasto e luminosità al minimo. Voltmetro elettronico tra massa ed il punto di misura 401. Tarare con **R 444.**

Frequenza verticale TV

Pin 9 / V 540 a massa.
Frequenzimetro al punto di misura 554.
f = 45 Hz da regolarsi con **R 562.**
Eliminare corto circuito.

Frequenza orizzontale TV

Ricevere un'emittente.
Pin 12 / V 540 a massa.
Frequenzimetro collegato al Pin 4.
Con **R 540** regolare per f = 15625 Hz.
Eliminare corto circuito.

Correzione est-ovest TV

Con **R 692**
regolare le linee verticali
per la minima
distorsione.

Ampiezza orizzontale TV ○

Con **L 699.**

Linearità verticale ☰

Fornire un segnale a reticolo.
Con **R 570** regolare per la medesima
ampiezza della parte superiore
e inferiore dell'immagine.

Le seguenti regolazione vengono effettuate sulla sezione di comando dell'apparecchio.

Ampiezza verticale TV
Posizione verticale TV
Ampiezza orizzontale TV △ □ ●
Posizione orizzontale TV

Per effettuare queste regolazioni l'apparecchio deve essere commutato come descritto in seguito
- Spegnere l'apparecchio con l'interruttore di rete.
- Premere il tasto ME e di nuovo l'interruttore di accensione contemporaneamente sino a quando compare l'indicatore.

TV

Premere brevemente il tasto ☼
ed indi rimpicciolire l'immagine
con il tasto + oppure
ampliarla con il tasto −.
Quindi inserire ME.

TV

Premere brevemente il tasto ⋈
ed indi con il tasto + spostare
l'immagine verso l'alto oppure
con il tasto − verso il basso.
Quindi inserire ME.

TV △ □ ●

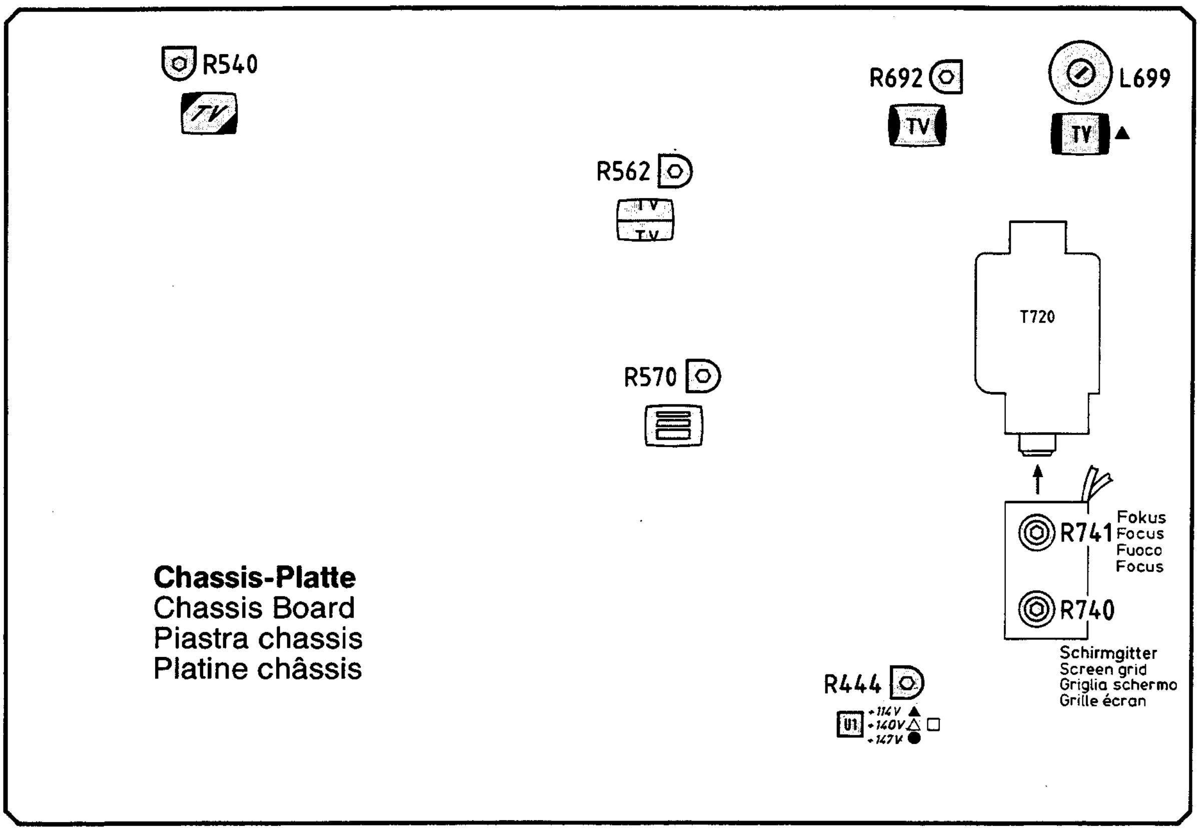
Premere brevemente il tasto ◕
ed indi con il tasto +
diminuire l'ampiezza orizzontale
oppure ampliarla con il tasto −.
Quindi inserire ME.

TV

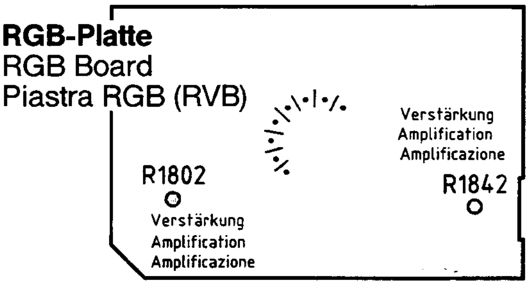
Premere brevemente il tasto ◺
ed indi spostare l'immagine con il tasto +
verso sinistra oppure
con il tasto − verso destra.
Quindi inserire ME.

Attenzione! Si prega non dimenticare di commutare di nuovo l'apparecchio su pilotaggio normale.
Questo avviene spegnendo e riaccendendo di nuovo l'apparecchio con l'interruttore di rete.

Lage der Einstellpunkte
Position of Adjustment Points
Posizione dei regolatori


R540
TV
R692
TV
L699
TV ▲
R562
TV
TV
R570
T720
R741
Fokus
Focus
Fuoco
Focus
R740
Schirmgitter
Screen grid
Griglia schermo
Grille écran
R444
U1
+114V ▲
+140V △ □
+147V ●
Chassis-Platte
Chassis Board
Piastra chassis
Platine châssis

F3867


RGB-Platte
RGB Board
Piastra RGB (RVB)
R1802
Verstärkung
Amplification
Amplificazione
Verstärkung
Amplification
Amplificazione
R1842

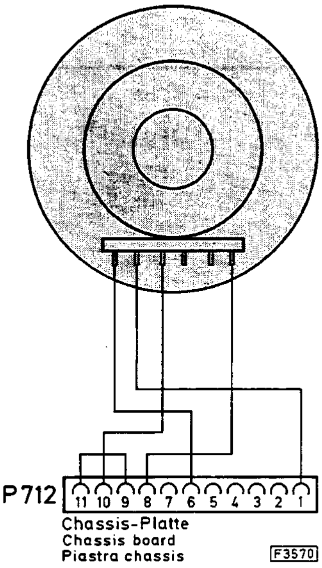
F3553

▲	A51 JAR 40 X01 (M)	Toshiba
△	A56-701X A67-701X	Videocolor/ITT
	560 ETB 22-TC04 670 C2B 22-TC04	Toshiba
	A59 EAF 00X01 A66 EAF 00X01	ITT/SEL
●	A59 EAK 00X01 A66 EAK 00X01	Valvo
□	A59 EAS 00X01 A66 EAS 00X01	Videocolor

Verdrahtung der Ablenkspulen
Wiring of Deflection Yoke
Impianto elèttrico bobine di deviazione

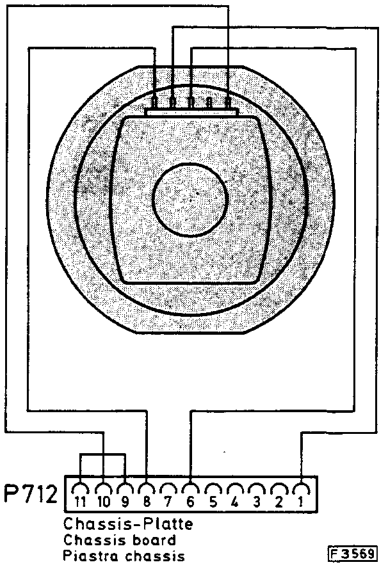
Bildröhre
Picture Tube
Cinescopio

A 56-701 X
A 67-701 X
A 66 EAS 00 X 01


P712
11 10 9 8 7 6 5 4 3 2 1
Chassis-Platte
Chassis board
Piastra chassis
F3570

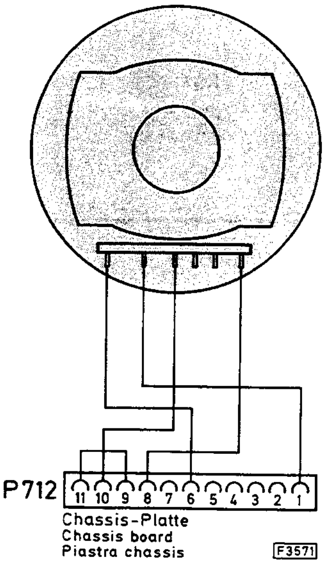
Bildröhre
Picture Tube
Cinescopio

560 ETB 22-TC 04
670 C 2 B 22-TC 04


P712
11 10 9 8 7 6 5 4 3 2 1
Chassis-Platte
Chassis board
Piastra chassis
F3569

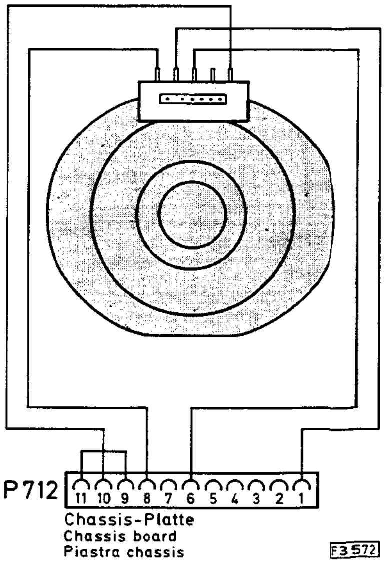
Bildröhre
Picture Tube
Cinescopio

A 66 EAF 00 X 01


P712
11 10 9 8 7 6 5 4 3 2 1
Chassis-Platte
Chassis board
Piastra chassis
F3571

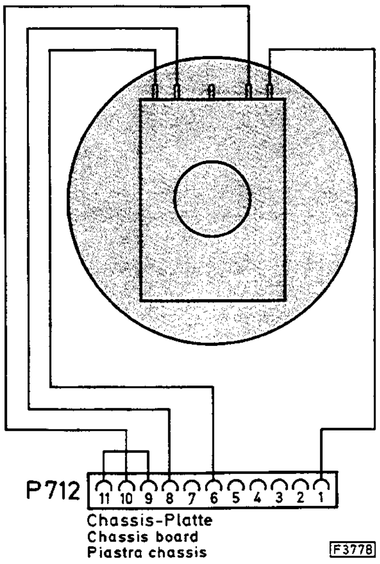
Bildröhre
Picture Tube
Cinescopio

A 66 EAK 00 X 01


P712
11 10 9 8 7 6 5 4 3 2 1
Chassis-Platte
Chassis board
Piastra chassis
F3572

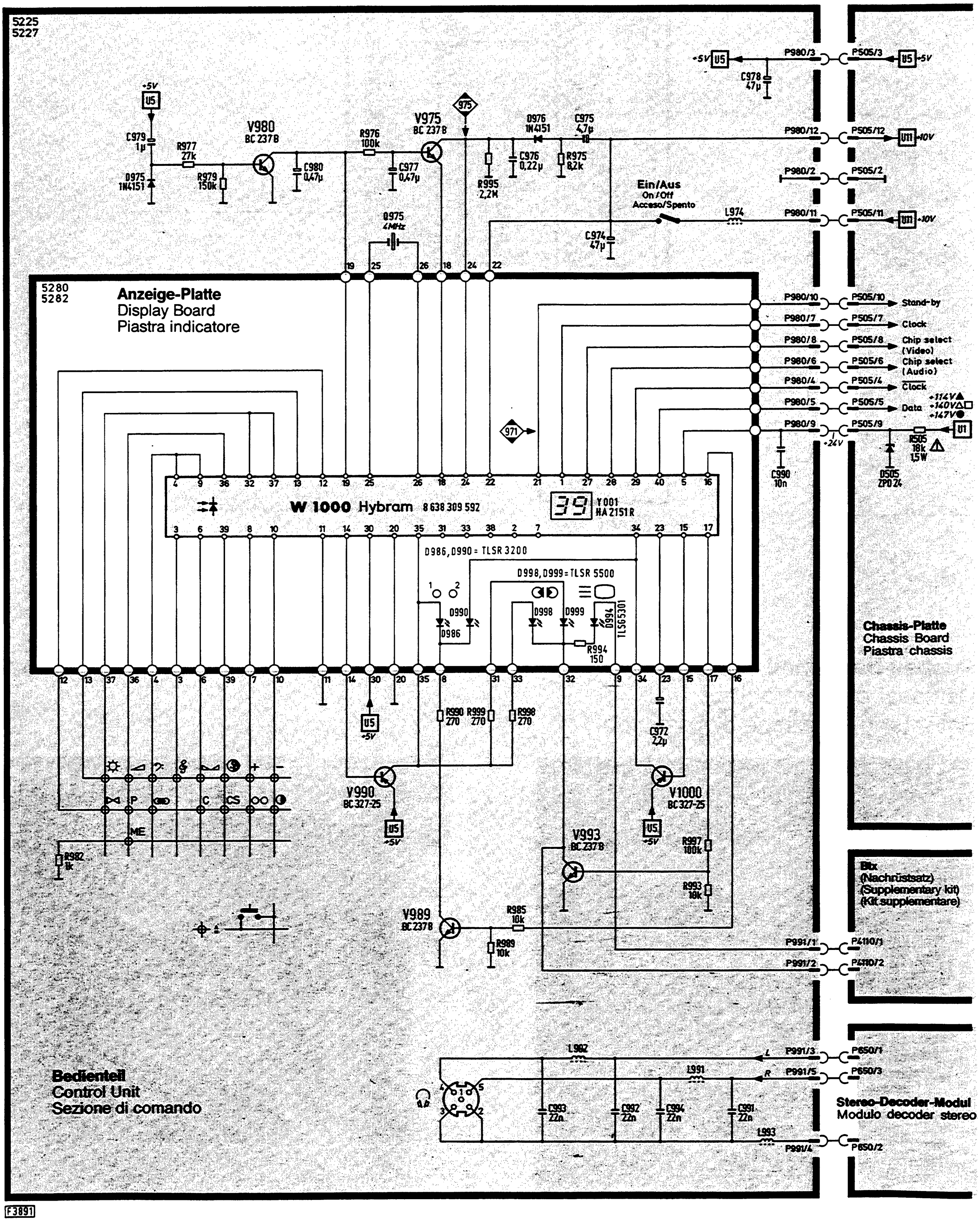
Bildröhre
Picture Tube
Cinescopio

A 51 JAR 40 X 01 (M)


P712
11 10 9 8 7 6 5 4 3 2 1
Chassis-Platte
Chassis board
Piastra chassis
F3778

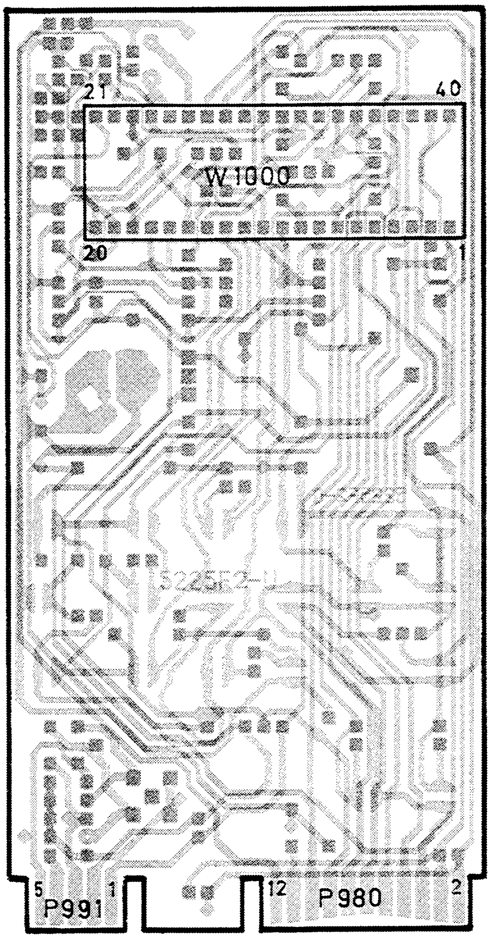
Bedienteil SP 45
Control Unit
Sezione di comando

W 1000 Mikroprozessor/Speicher/Anzeigesteuerung/Infrarot-Empfänger
Microprocessor/Memory/Channel display/Infrared receiver
Microprocessore/Memoria/Comando dei canali/Ricevitore infrarossi


5225
5227
5280
5282
Anzeige-Platte
Display Board
Piastra indicatore
W 1000 Hybram 8 638 309 592
Y001 HA 2151 R
D986, D990 = TLSR 3200
D998, D999 = TLSR 5500
TLS 6301
V980 BC 237 B
V975 BC 237 B
V990 BC 327-25
V1000 BC 327-25
V993 BC 237 B
V989 BC 237 B
C979 1µ
R977 27k
D975 1N4151
R979 150k
C980 0,47µ
R976 100k
C977 0,47µ
Q975 4 MHz
R995 2,2M
D976 1N4151
C975 4,7µ
C976 0,22µ
R975 8,2k
C978 47µ
C974 47µ
L974
Ein/Aus
On/Off
Acceso/Spento
C990 10n
R505 18k 1,5W
D505 ZPD 24
R990 270
R999 270
R998 270
R994 150
C972 2,2µ
R997 180k
R993 18k
R985 10k
R989 10k
R982 1k
L992
L991
L993
C993 22n
C992 22n
C994 22n
C991 22n
+5V
U5
U11 +10V
+24V
U1
P980/3
P505/3
P980/12
P505/12
P980/2
P505/2
P980/11
P505/11
P980/10
P505/10
Stand-by
P980/7
P505/7
Clock
P980/8
P505/8
Chip select (Video)
P980/6
P505/6
Chip select (Audio)
P980/4
P505/4
Clock
P980/5
P505/5
Data
+114V▲
+140V△□
+147V●
P980/9
P505/9
Chassis-Platte
Chassis Board
Piastra chassis
Btx (Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
P991/1
P4110/1
P991/2
P4110/2
L
R
P991/3
P650/1
P991/5
P650/3
P991/4
P650/2
Stereo-Decoder-Modul
Modulo decoder stereo
P
ME
C
CS
Bedienteil
Control Unit
Sezione di comando
975
971

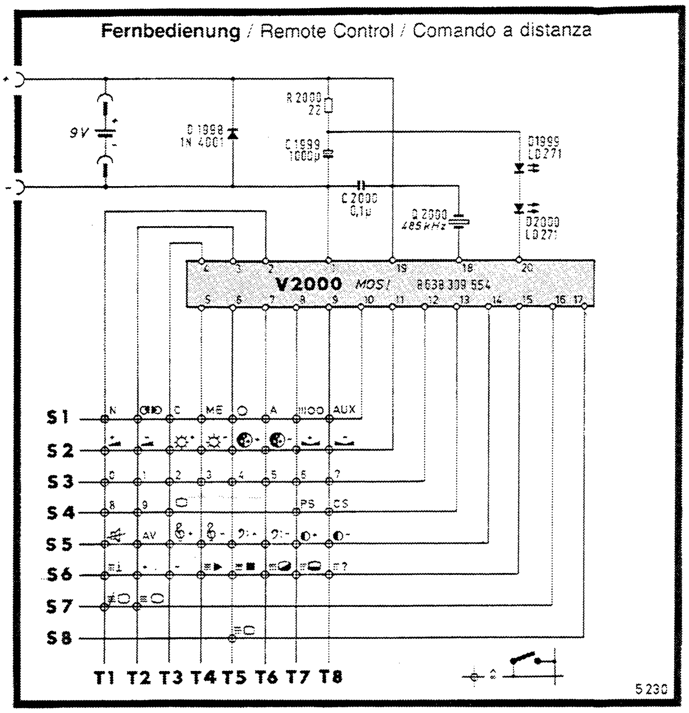
F3891

Bedienteil-Platte
Control Unit Board
Piastra sezione di comando


21
40
W1000
20
1
5225F2-1
5
P991
1
12
P980
2

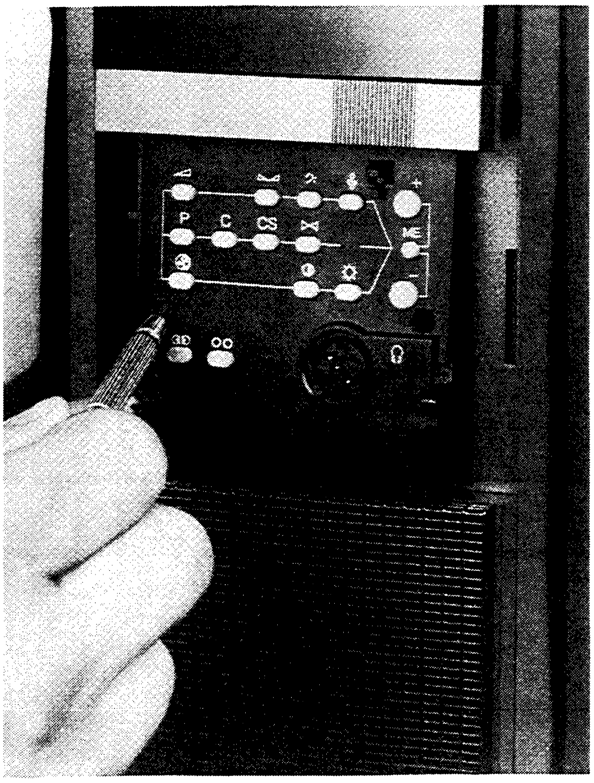
F3583

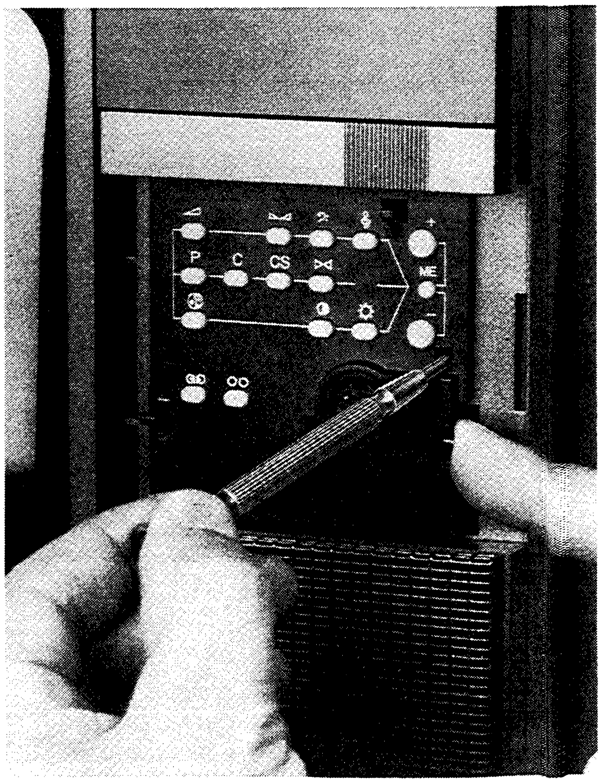
Fernbedienung SP 45, SP 55, SQ 25
Remote Control
Comando a distanza


Fernbedienung / Remote Control / Comando a distanza
+
-
9V
D1998
1N 4001
R2000
22
C1999
1000p
C2000
0,1µ
Q2000
485 kHz
D1999
LD271
D2000
LD271
V2000 MOS! 8638 309 554
S1
S2
S3
S4
S5
S6
S7
S8
N
C
ME
A
AUX
0
1
2
3
4
5
6
7
8
9
PS
CS
AV
T1 T2 T3 T4 T5 T6 T7 T8
5230

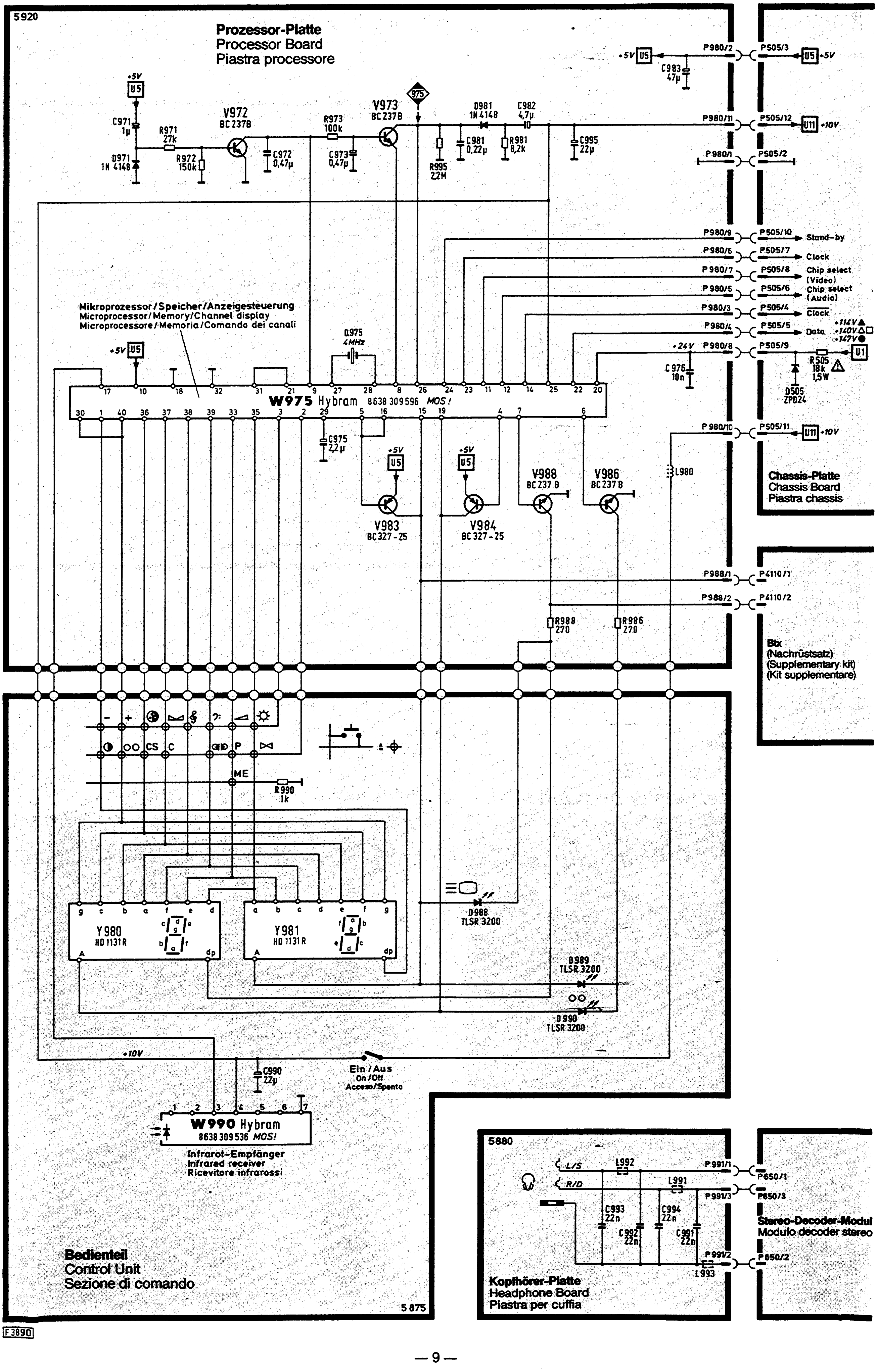
F3578

Ausbau-Bedienteil
Removal of Control Unit
Smontaggio sezione di comando



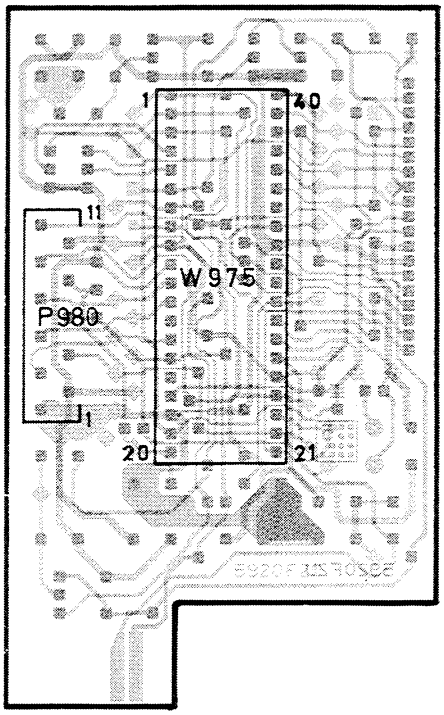


Bedienteil SP 55
Control Unit
Sezione di comando


5920
Prozessor-Platte
Processor Board
Piastra processore
+5V U5
C971 1µ
D971 1N 4148
R971 27k
R972 150k
V972 BC 237B
C972 0,47µ
R973 100k
C973 0,47µ
V973 BC 237B
975
D981 1N 4148
C982 4,7µ
C981 0,22µ
R981 8,2k
R995 2,2M
C995 22µ
+5V U5
C983 47µ
P980/2
P505/3
U5 +5V
P980/11
P505/12
U11 +10V
P980/1
P505/2
P980/9
P505/10
Stand-by
P980/6
P505/7
Clock
P980/7
P505/8
Chip select (Video)
P980/5
P505/6
Chip select (Audio)
P980/3
P505/4
Clock
P980/4
P505/5
Data
+114V▲
+140V△□
+147V●
+24V
P980/8
P505/9
C976 10n
R505 18k 1,5W
D505 ZPD24
U1
Mikroprozessor/Speicher/Anzeigesteuerung
Microprocessor/Memory/Channel display
Microprocessore/Memoria/Comando dei canali
Q975 4MHz
+5V U5
W975 Hybram 8638 309 596 MOS!
17 10 18 32 31 21 9 27 28 8 26 24 23 11 12 14 25 22 20
30 1 40 36 37 38 39 33 35 3 2 29 5 16 15 19 4 7 6
C975 2,2µ
+5V U5
+5V U5
V983 BC 327-25
V984 BC 327-25
V988 BC 237 B
V986 BC 237 B
L980
P980/10
P505/11
U11 +10V
Chassis-Platte
Chassis Board
Piastra chassis
P988/1
P4110/1
P988/2
P4110/2
R988 270
R986 270
Btx
(Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
- + CS C P ME
R990 1k
Y980 HD 1131 R
Y981 HD 1131 R
g c b a f e d A dp
a b c d e f g A dp
D988 TLSR 3200
D989 TLSR 3200
D990 TLSR 3200
+10V
C990 22µ
Ein/Aus
On/Off
Acceso/Spento
1 2 3 4 5 6 7
W990 Hybram 8638 309 536 MOS!
Infrarot-Empfänger
Infrared receiver
Ricevitore infrarossi
Bedienteil
Control Unit
Sezione di comando
5875
5880
L/S
R/D
L992
L991
C993 22n
C994 22n
C992 22n
C991 22n
L993
P991/1
P991/3
P991/2
P650/1
P650/3
P650/2
Stereo-Decoder-Modul
Modulo decoder stereo
Kopfhörer-Platte
Headphone Board
Piastra per cuffia

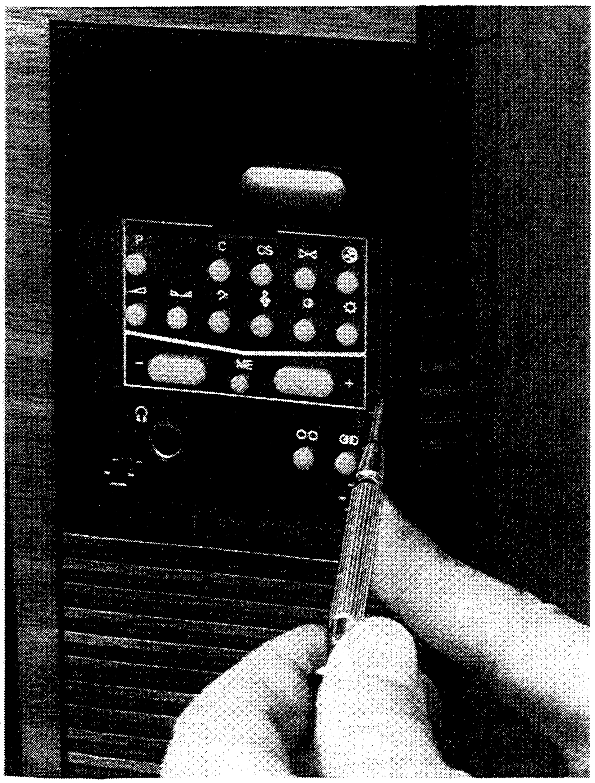
F 3890

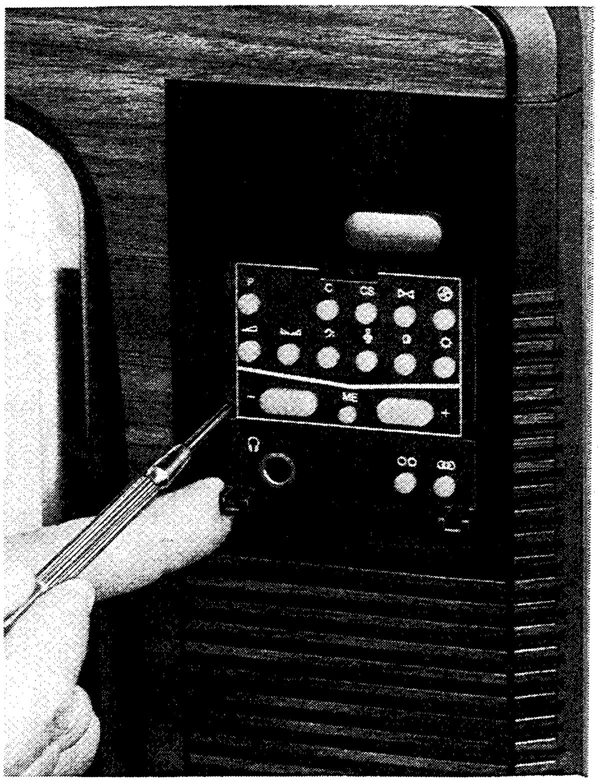
Prozessor-Platte SP 55
Processor Board
Piastra processore


1
40
11
W 975
P980
1
20
21

F 3585

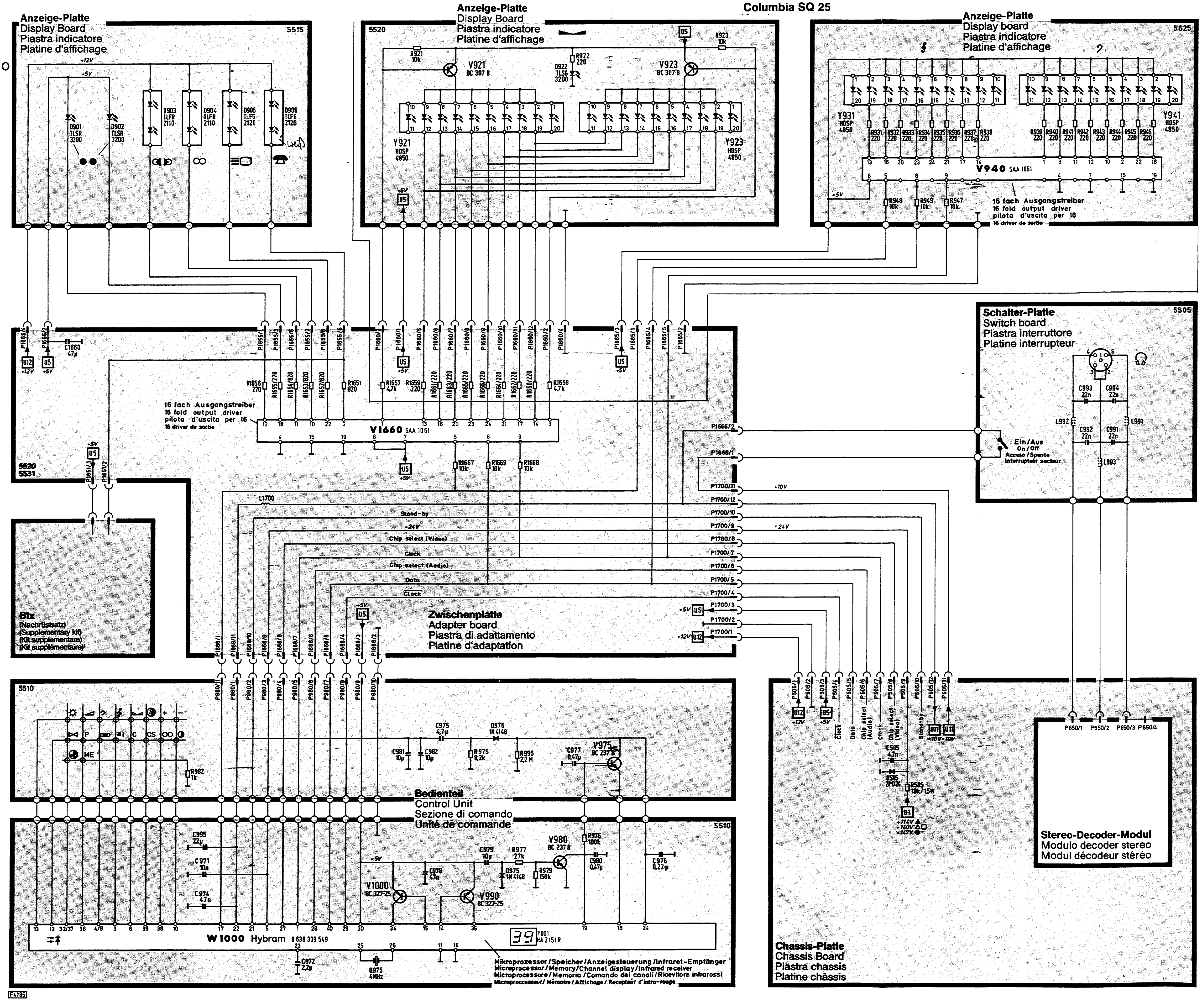
Ausbau-Bedienteil
Removal of Control Unit
Smontaggio sezione di comando



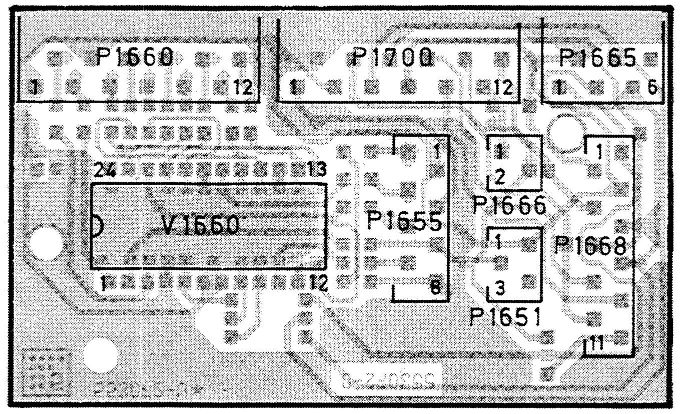


Bedienteil SQ 25
Control Unit
Sezione di comando

Columbia SQ 25


Anzeige-Platte
Display Board
Piastra indicatore
Platine d'affichage
5515
5520
5525
D901 TLSR 3200
D902 TLSR 3200
D903 TLFR 2110
D904 TLFR 2110
D905 TLFG 2120
D906 TLFG 2120
V921 BC 307 B
V923 BC 307 B
Y921 HDSP 4850
Y923 HDSP 4850
Y931 HDSP 4850
Y941 HDSP 4850
V940 SAA 1061
16 fach Ausgangstreiber
16 fold output driver
pilota d'uscita per 16
16 driver de sortie
Schalter-Platte
Switch board
Piastra interruttore
Platine interrupteur
5505
Ein/Aus
On/Off
Acceso/Spento
Interrupteur secteur
V1660 SAA 1061
5520
5531
Btx
(Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
(Kit supplémentaire)
Stand-by
+24V
Chip select (Video)
Clock
Chip select (Audio)
Data
Clock
Zwischenplatte
Adapter board
Piastra di adattamento
Platine d'adaptation
5510
Bedienteil
Control Unit
Sezione di comando
Unité de commande
V975 BC 237 B
V980 BC 237 B
V1000 BC 327-25
V990 BC 327-25
W1000 Hybram 8 638 309 549
Y001 PA 2151 R
Q975 4MHz
Mikroprozessor/Speicher/Anzeigesteuerung/Infrarot-Empfänger
Microprocessor/Memory/Channel display/Infrared receiver
Microprocessore/Memoria/Comando dei canali/Ricevitore infrarossi
Microprocesseur/Mémoire/Affichage/Recepteur d'infra-rouge
Chassis-Platte
Chassis Board
Piastra chassis
Platine châssis
Stereo-Decoder-Modul
Modulo decoder stereo
Modul décodeur stéréo
P650/1 P650/2 P650/3 P650/4
F4185

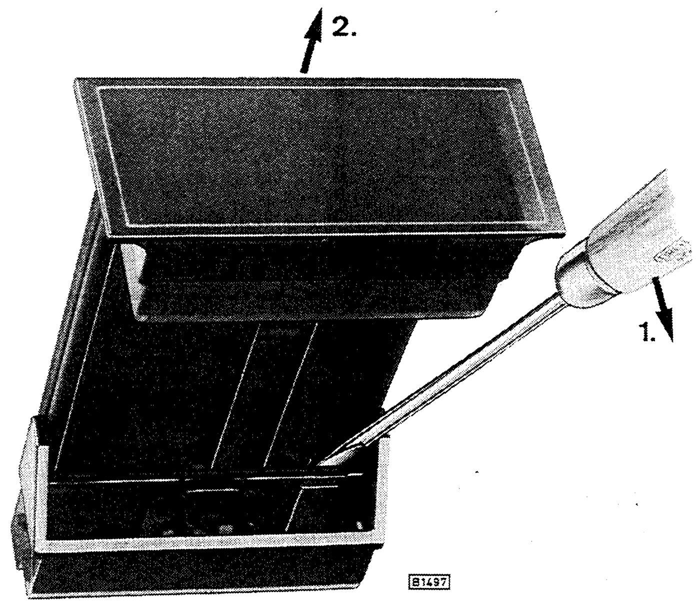
Zwischenplatte SQ 25
Adapter Board
Piastra di adattamento


P1660
1
12
P1700
1
12
P1665
1
6
24
13
V1660
1
12
P1655
1
6
1
2
P1666
1
P1668
3
P1651
1
11

F3584

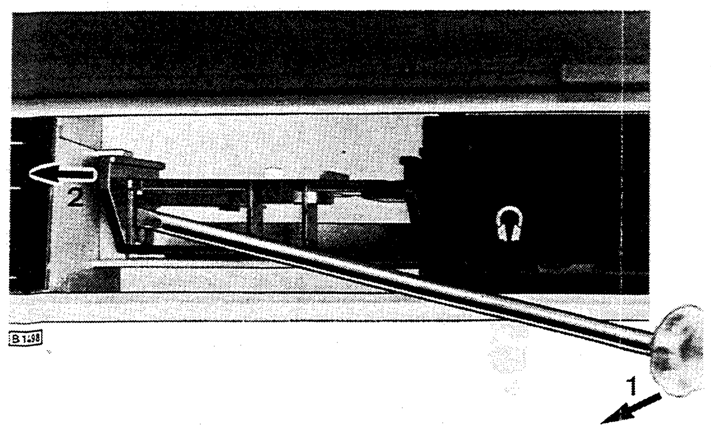
Ausbau
Removal
Smontaggio

Programmeinheit
Control Unit
Sezione di comando

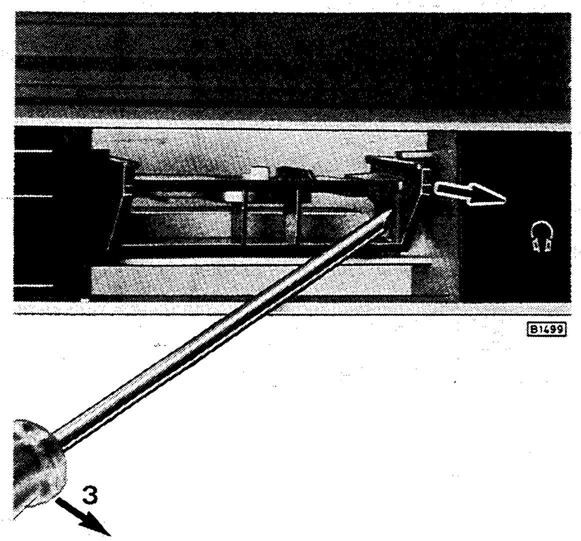


B1497

Führung für Programmeinheit
Guide for Control Unit
Guida per sezione di comando

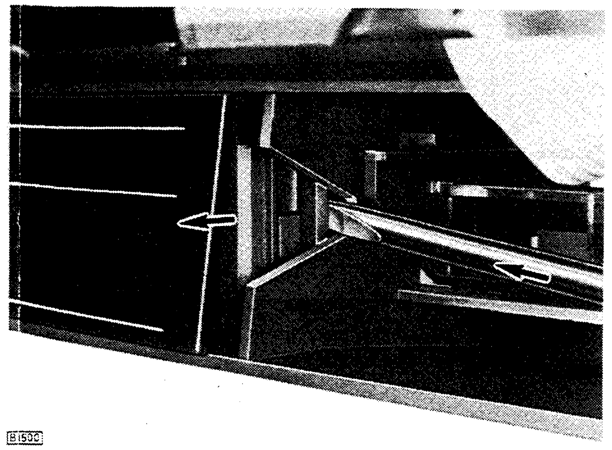


B1498

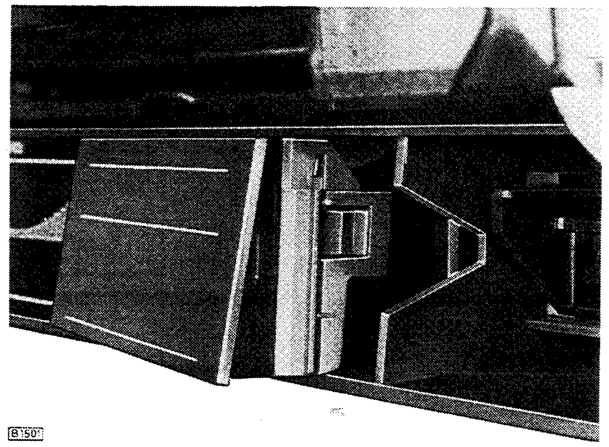


B1499

Anzeigeeinheiten
Display Units
Sezioni indicatore

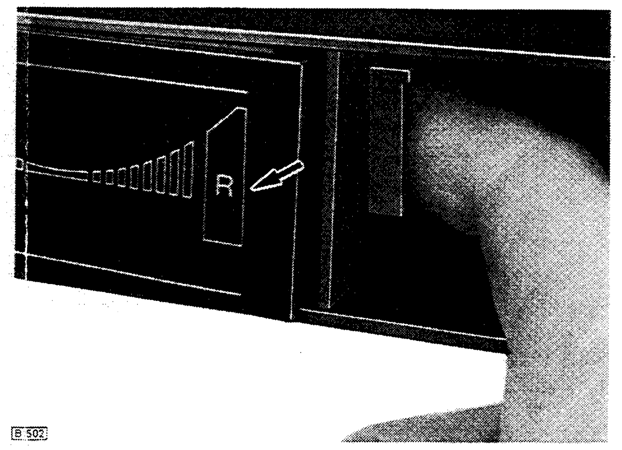


B1500



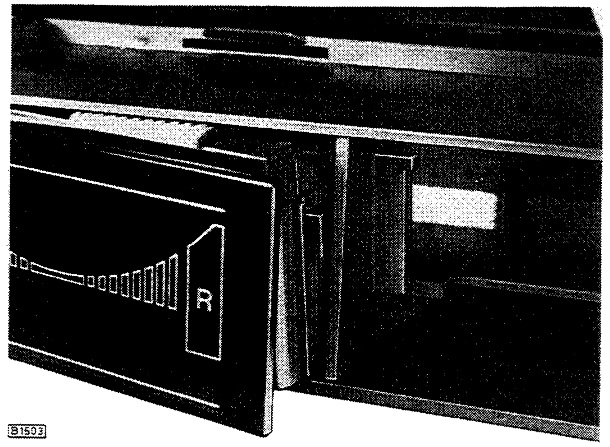
B1501

Columbia



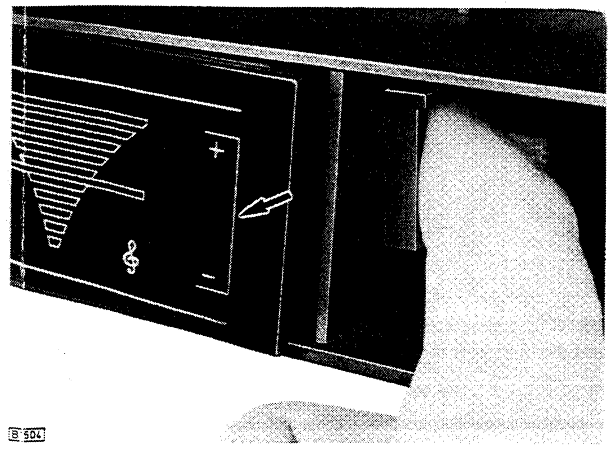
B1502

Columbia



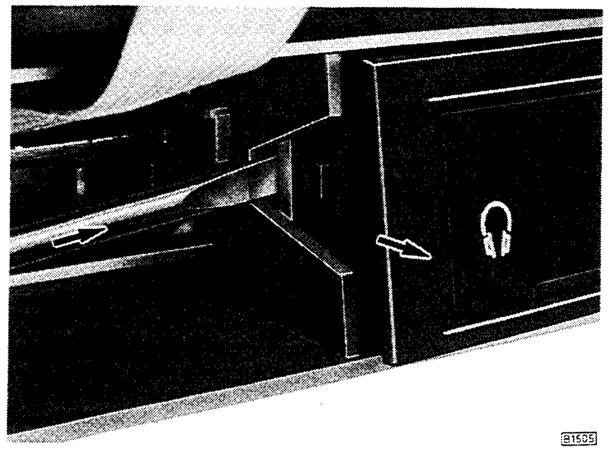
B1503

Columbia

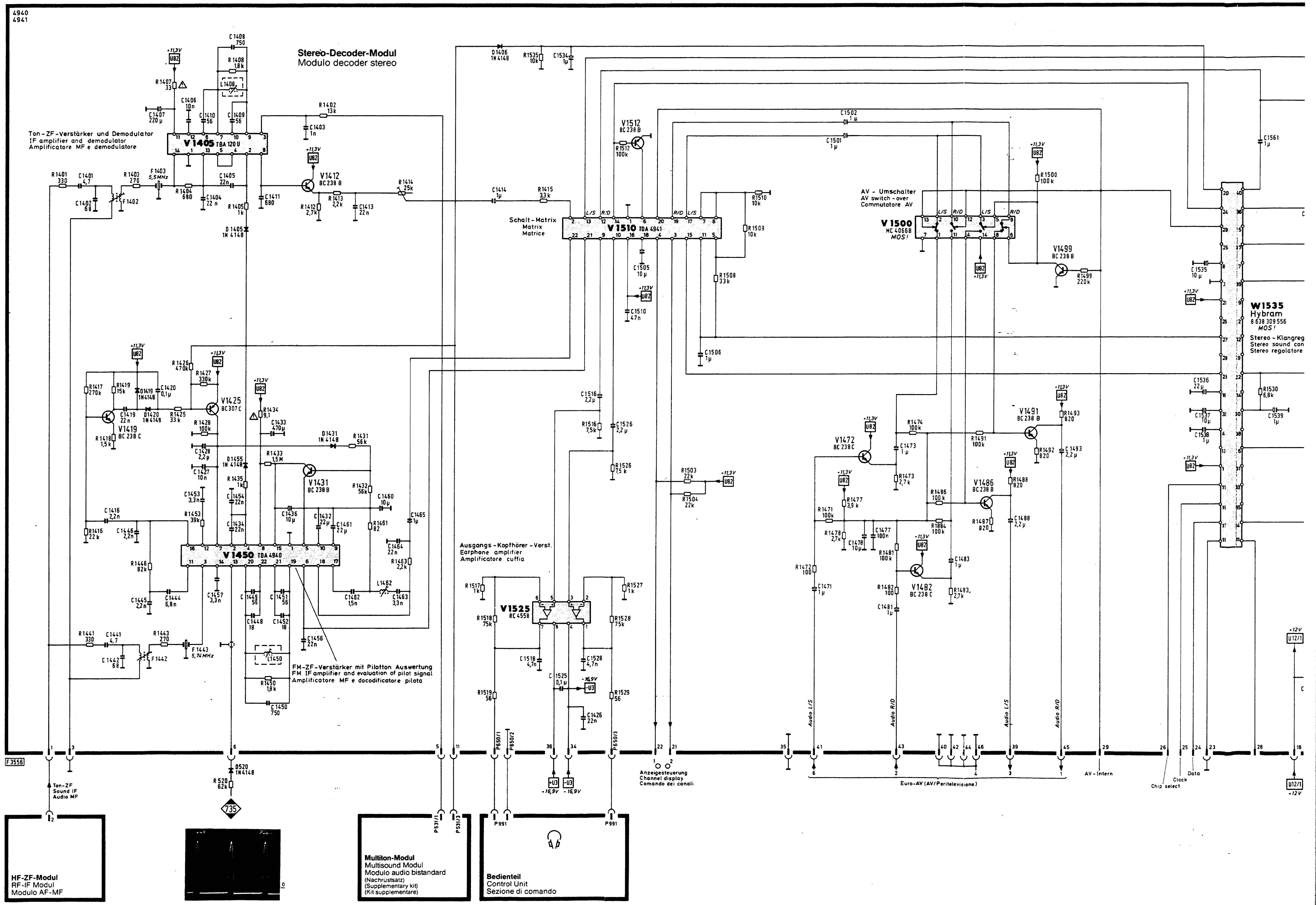


B1504

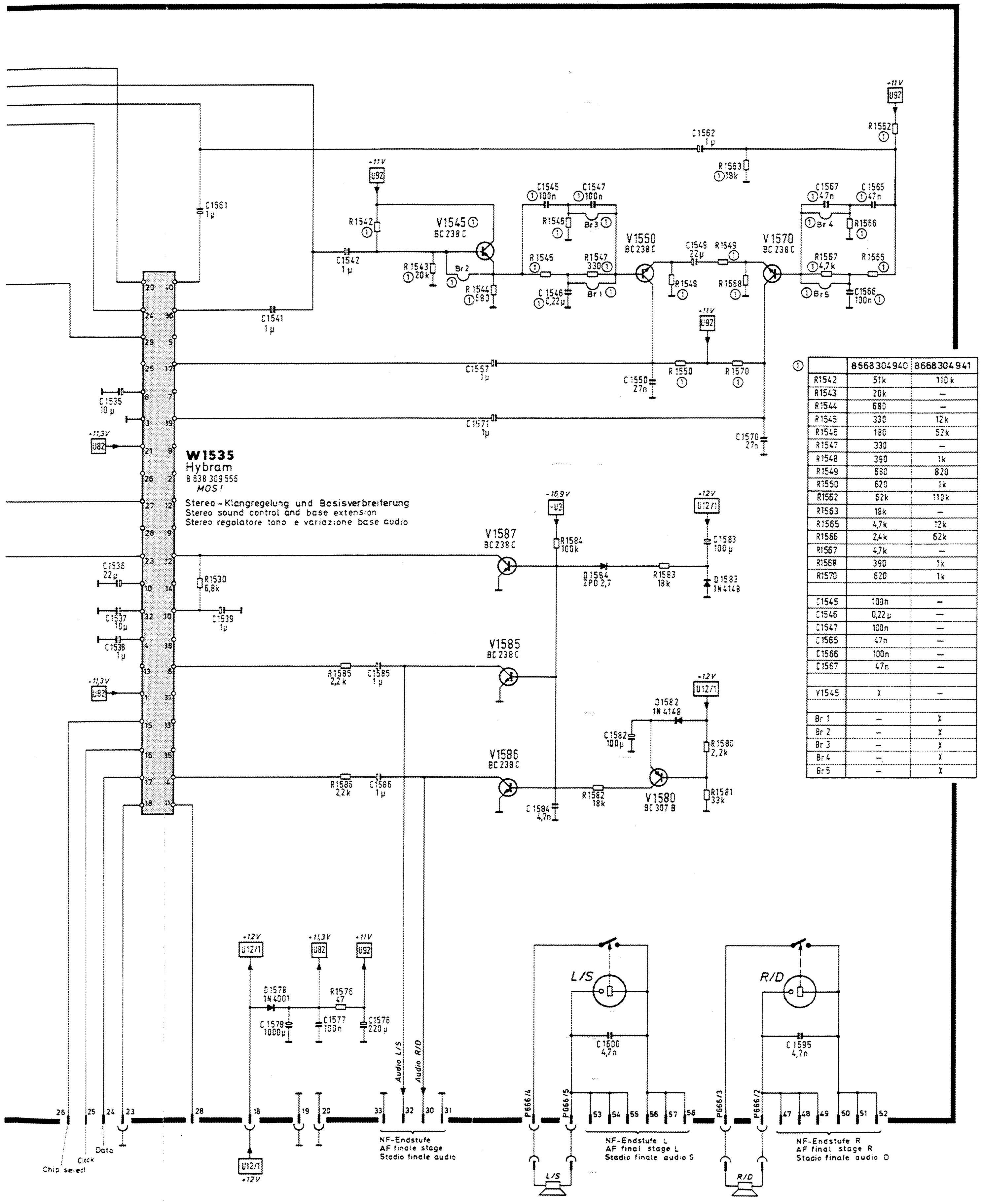
Schaltereinheit
Switch Unit
Unità interrutore



B1505


4940
4941
Stereo-Decoder-Modul
Modulo decoder stereo
Ton-ZF-Verstärker und Demodulator
IF amplifier and demodulator
Amplificatore MF e demodulatore
V1405 TBA 120 U
V1412 BC 238 B
D1405 1N4148
D1406 1N4148
Schalt-Matrix
Matrix
Matrice
V1510 TDA 4941
V1512 BC 238 B
AV-Umschalter
AV switch-over
Commutatore AV
V1500 MC 4066B MOS!
V1499 BC 238 B
W1535 Hybram 8 638 309 556 MOS!
Stereo-Klangreg
Stereo sound con
Stereo regolatore
V1419 BC 238 C
V1425 BC 307 C
V1431 BC 238 B
V1450 TDA 4940
FM-ZF-Verstärker mit Pilotton Auswertung
FM IF amplifier and evaluation of pilot signal
Amplificatore MF e decodificatore pilota
Ausgangs-Kopfhörer-Verst.
Earphone amplifier
Amplificatore cuffia
V1525 RC 4558
V1472 BC 238 C
V1491 BC 238 B
V1486 BC 238 B
V1482 BC 238 C
Audio L/S
Audio R/D
Anzeigesteuerung
Channel display
Comando dei canali
Euro-AV (AV/Peritelevizione)
AV-Intern
Chip select
Clock
Data
F3556
Ton-ZF
Sound IF
Audio MF
D520 1N4148
R520 62k
735
HF-ZF-Modul
RF-IF Modul
Modulo AF-MF
Multiton-Modul
Multisound Modul
Modulo audio bistandard
(Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
Bedienteil
Control Unit
Sezione di comando
P531/1
P531/3
P991
P650/1
P650/2
P650/3
+11,3V
U82
+16,9V
-16,9V
+12V
U12/1

Stereo-Decoder-Modul / Modulo decoder stereo

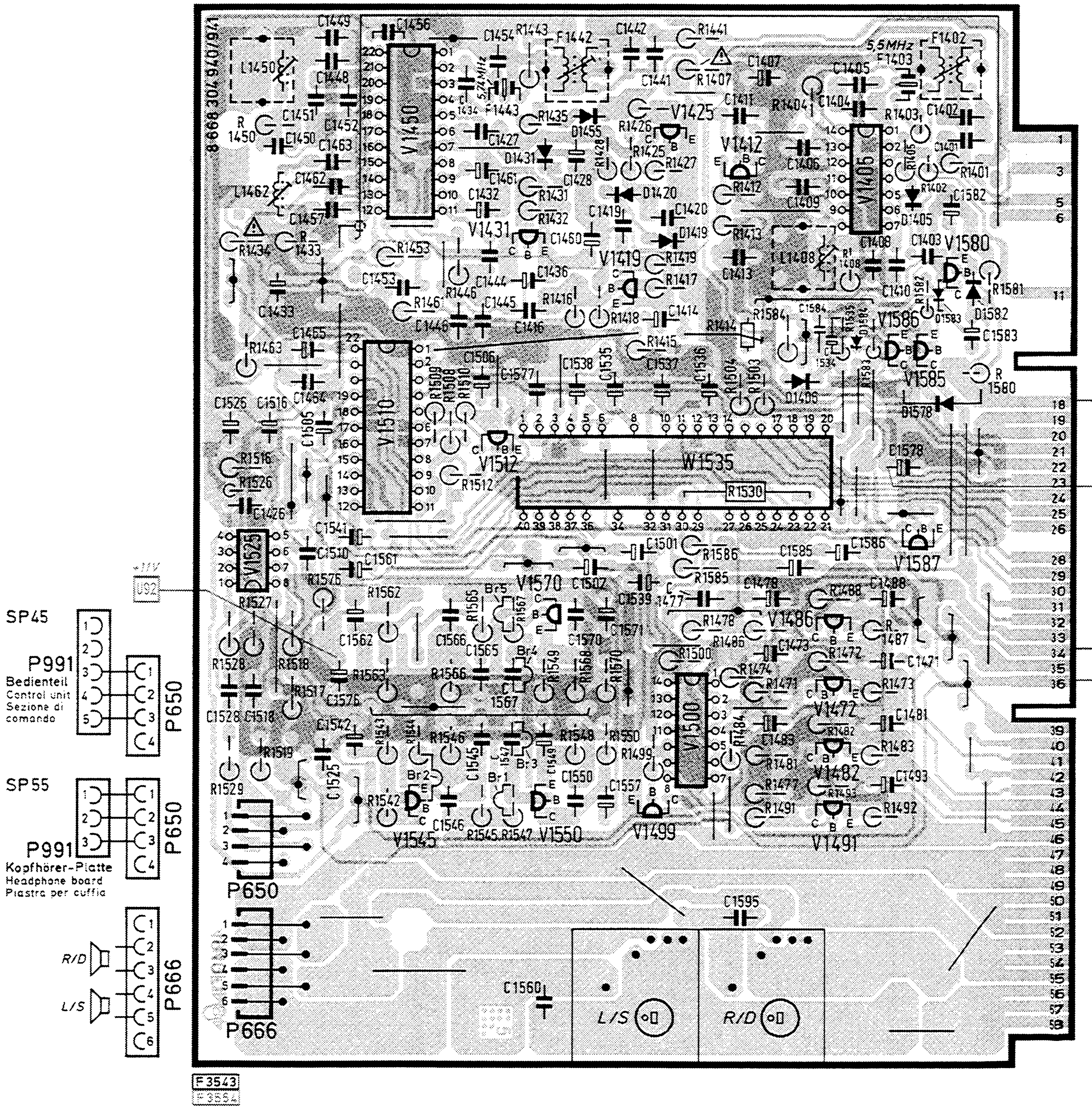

W1535
Hybram
8 638 309 556
MOS!
Stereo-Klangregelung und Basisverbreiterung
Stereo sound control and base extension
Stereo regolatore tono e variazione base audio
V1545 ① BC 238 C
V1550 BC 238 C
V1570 BC 238 C
V1587 BC 238 C
V1585 BC 238 C
V1586 BC 238 C
V1580 BC 307 B
D1582 1N 4148
D1583 1N 4148
D1584 ZPD 2,7
D1578 1N 4001
U92
U82
U12/1
U3
+11V
+11,3V
+12V
-16,9V
L/S
R/D
Audio L/S
Audio R/D
P666/4
P666/5
P666/3
P666/2
NF-Endstufe
AF finale stage
Stadio finale audio
NF-Endstufe L
AF final stage L
Stadio finale audio S
NF-Endstufe R
AF final stage R
Stadio finale audio D
Chip select
Clock
Data

①	8668304940	8668304941
R1542	51k	110k
R1543	20k	–
R1544	680	–
R1545	330	12k
R1546	180	52k
R1547	330	–
R1548	390	1k
R1549	680	820
R1550	620	1k
R1562	62k	110k
R1563	18k	–
R1565	4,7k	12k
R1566	2,4k	62k
R1567	4,7k	–
R1568	390	1k
R1570	620	1k
C1545	100n	–
C1546	0,22μ	–
C1547	100n	–
C1565	47n	–
C1566	100n	–
C1567	47n	–
V1545	X	–
Br 1	–	X
Br 2	–	X
Br 3	–	X
Br 4	–	X
Br 5	–	X

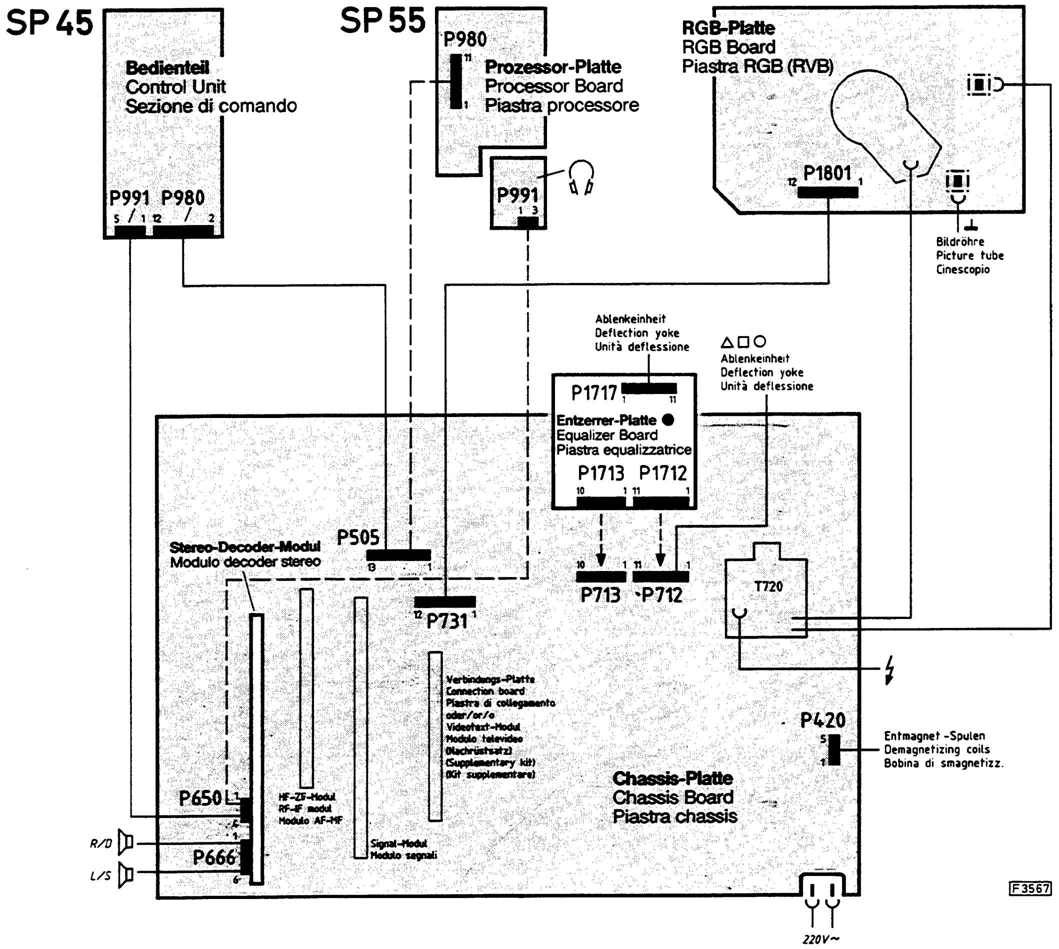
Stereo-Decoder-Modul 8 668 304 940
8 668 304 941

Modulo decoder stereo

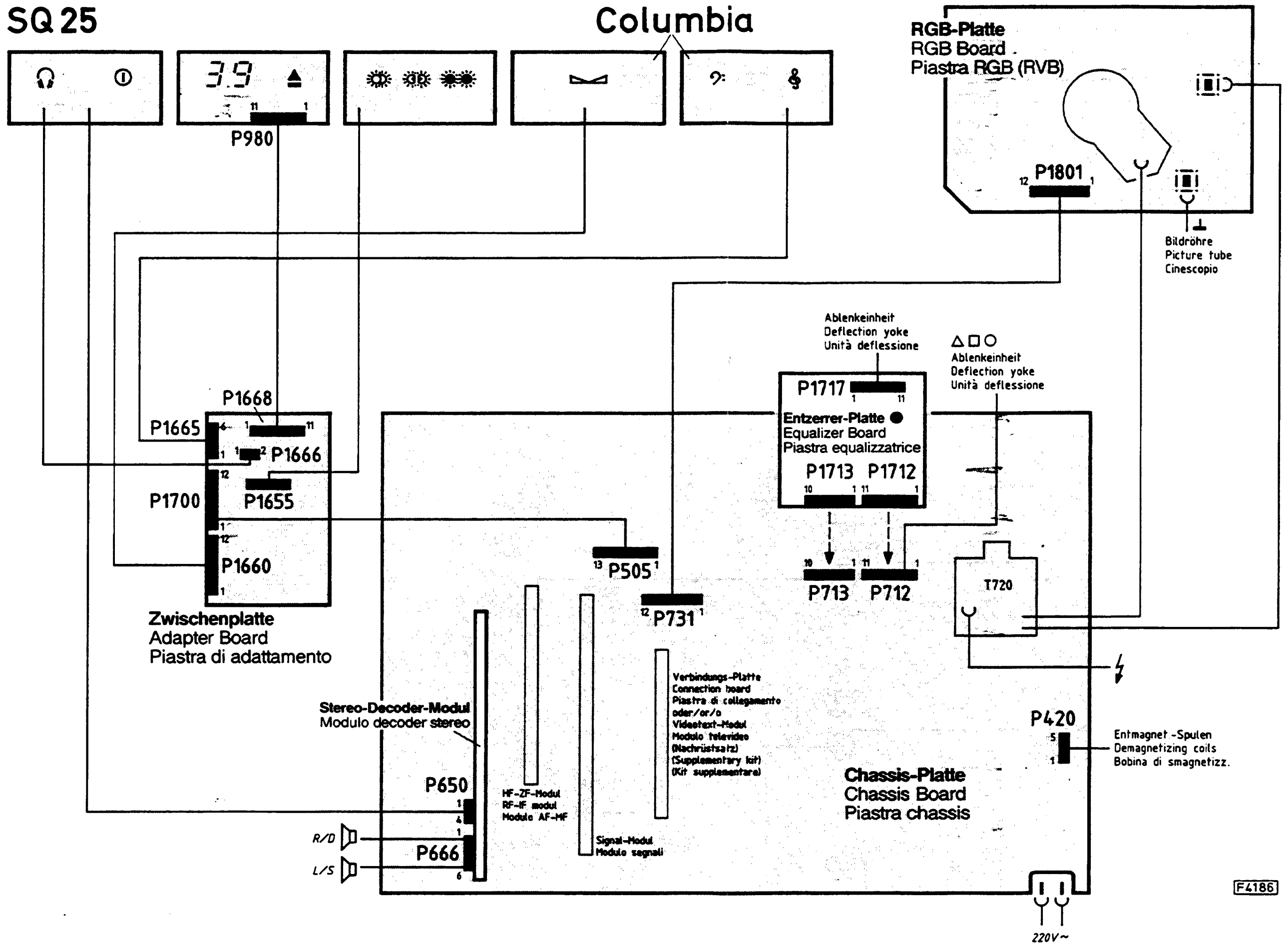
Lötseite / Printed side / Lato saldature


8 668 304 940/941
V1450
V1406
V1510
W1535
V1500
V1587
V1585
V1580
V1570
V1550
V1545
V1499
V1491
V1482
V1486
V1472
V1425
V1412
V1431
V1419
V1512
F1442
F1402
F1443
5,5MHz
L1450
L1462
SP45
P991
Bedienteil
Control unit
Sezione di comando
SP55
Kopfhörer-Platte
Headphone board
Piastra per cuffia
P650
P666
R/D
L/S
+12V
U12/1
+11,3V
U82
+11V
U92
-16,9V
U3
+16,9V
F3543
F3554

Steckverbindungen
Plug Connections
Collegamenti a spine


SP 45
Bedienteil
Control Unit
Sezione di comando
P991 P980
5 / 1 12 / 2
SP 55
P980
11
1
Prozessor-Platte
Processor Board
Piastra processore
P991
1 3
RGB-Platte
RGB Board
Piastra RGB (RVB)
12 P1801 1
Bildröhre
Picture tube
Cinescopio
Ablenkeinheit
Deflection yoke
Unità deflessione
△□○
Ablenkeinheit
Deflection yoke
Unità deflessione
P1717
1 11
Entzerrer-Platte ●
Equalizer Board
Piastra equalizzatrice
P1713 P1712
10 1 11 1
Stereo-Decoder-Modul
Modulo decoder stereo
P505
13 1
12 P731 1
10 1 11 1
P713 P712
T720
Verbindungs-Platte
Connection board
Piastra di collegamento
oder/or/o
Videotext-Modul
Modulo televideo
(Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
P420
5
1
Entmagnet -Spulen
Demagnetizing coils
Bobina di smagnetizz.
Chassis-Platte
Chassis Board
Piastra chassis
P650
1
4
1
P666
6
HF-ZF-Modul
RF-IF modul
Modulo AF-MF
Signal-Modul
Modulo segnali
R/D
L/S
220V~
F3567

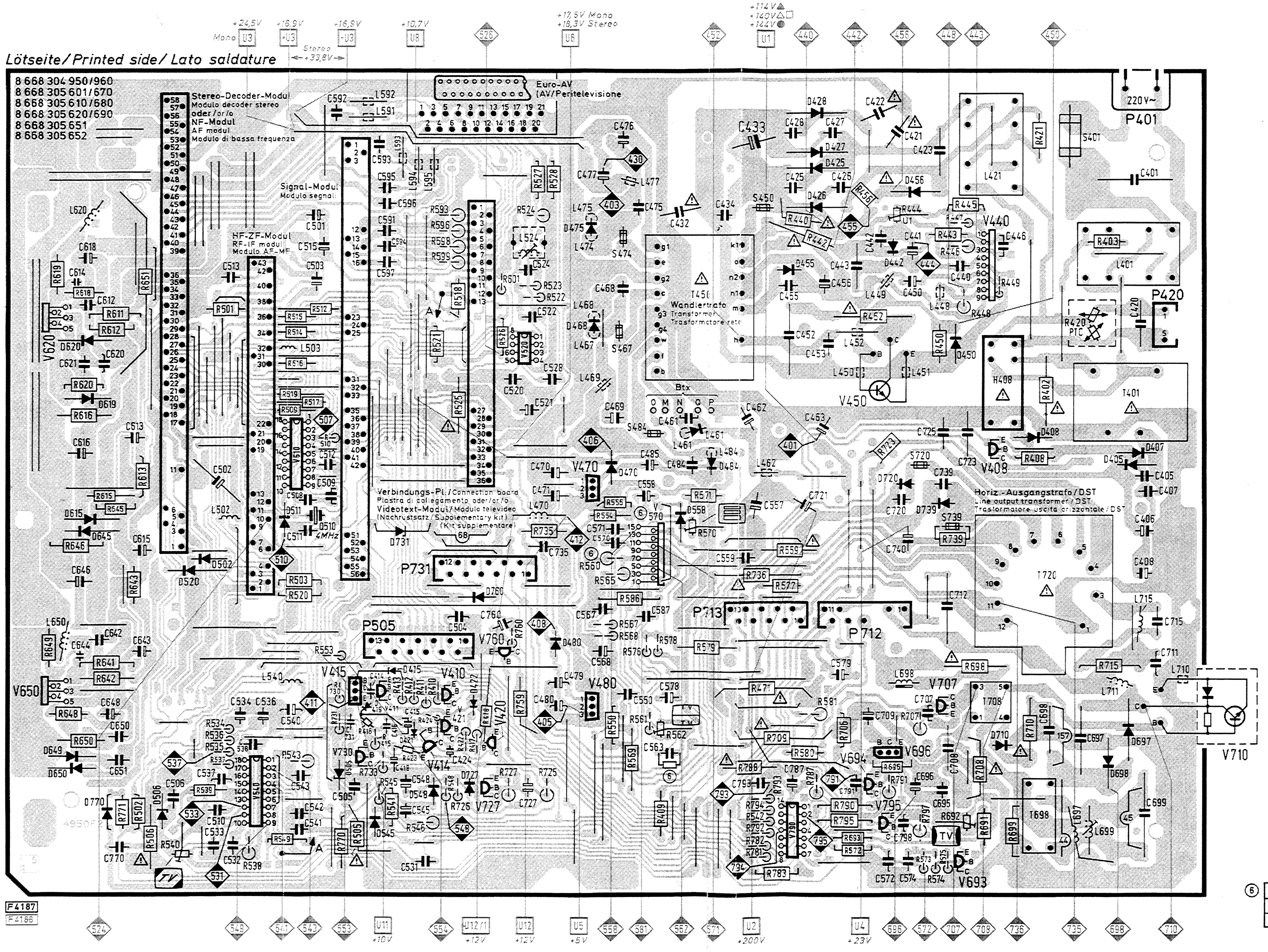
Steckverbindungen
Plug Connections
Collegamenti a spine


SQ 25
Columbia
3.9
11 1
P980
RGB-Platte
RGB Board
Piastra RGB (RVB)
12 P1801 1
Bildröhre
Picture tube
Cinescopio
P1668
P1665
1 11
1 2 P1666
P1700
12
P1655
12
P1660
1
Zwischenplatte
Adapter Board
Piastra di adattamento
Ablenkeinheit
Deflection yoke
Unità deflessione
△□○
Ablenkeinheit
Deflection yoke
Unità deflessione
P1717
1 11
Entzerrer-Platte ●
Equalizer Board
Piastra equalizzatrice
P1713 P1712
10 1 11 1
13 P505 1
12 P731 1
10 1 11 1
P713 P712
T720
Verbindungs-Platte
Connection board
Piastra di collegamento
oder/or/o
Videotext-Modul
Modulo televideo
(Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
Stereo-Decoder-Modul
Modulo decoder stereo
P650
1
4
1
P666
6
HF-ZF-Modul
RF-IF modul
Modulo AF-MF
Signal-Modul
Modulo segnali
R/D
L/S
P420
5
1
Entmagnet -Spulen
Demagnetizing coils
Bobina di smagnetizz.
Chassis-Platte
Chassis Board
Piastra chassis
220V~
F4186

Chassis-Platte 8 668 304 950
8 668 305 601
8 668 305 610
8 668 305 620
8 668 305 651
8 668 305 652

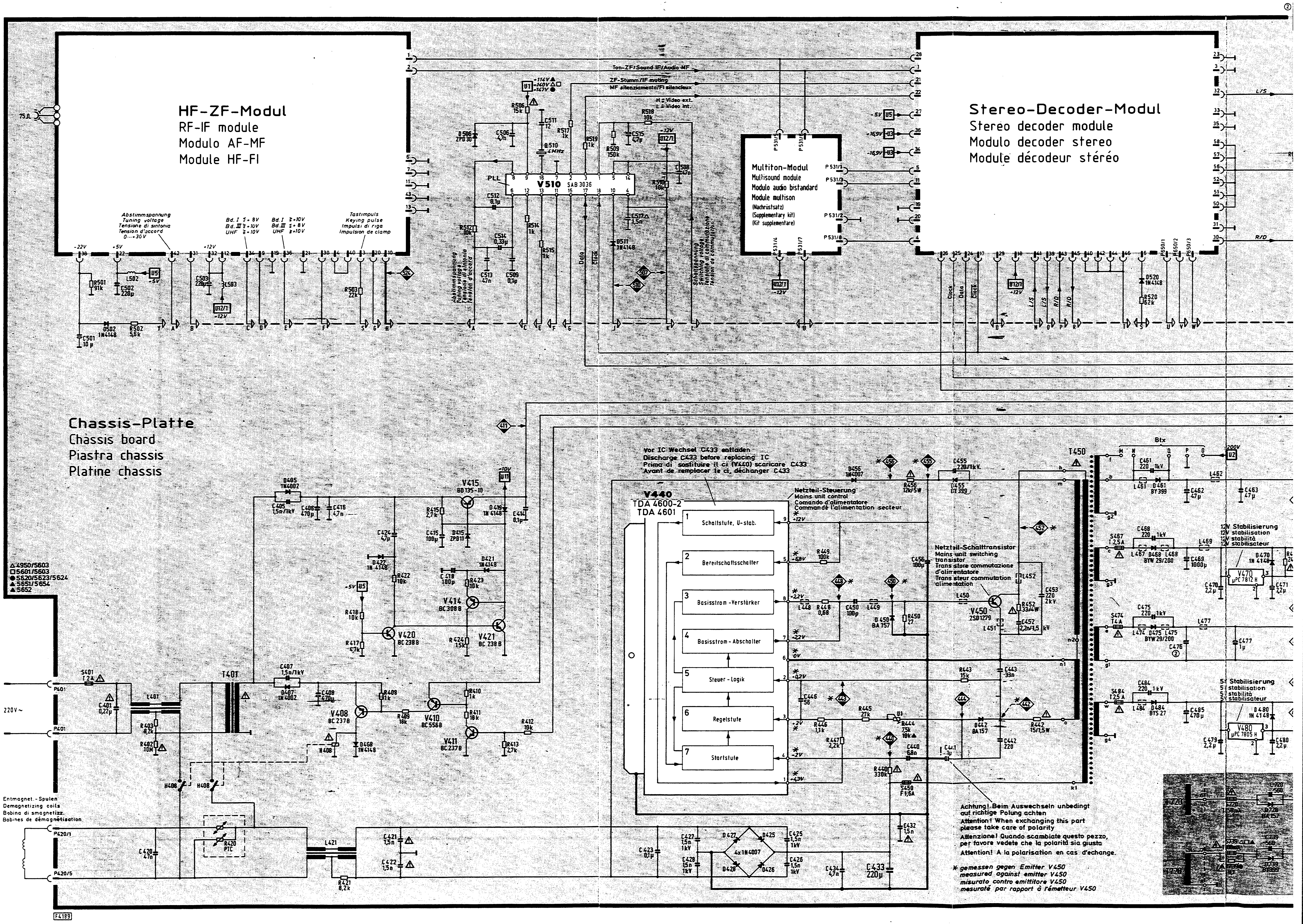
Chassis Board
Piastra chassis

Lötseite/ Printed side/ Lato saldature

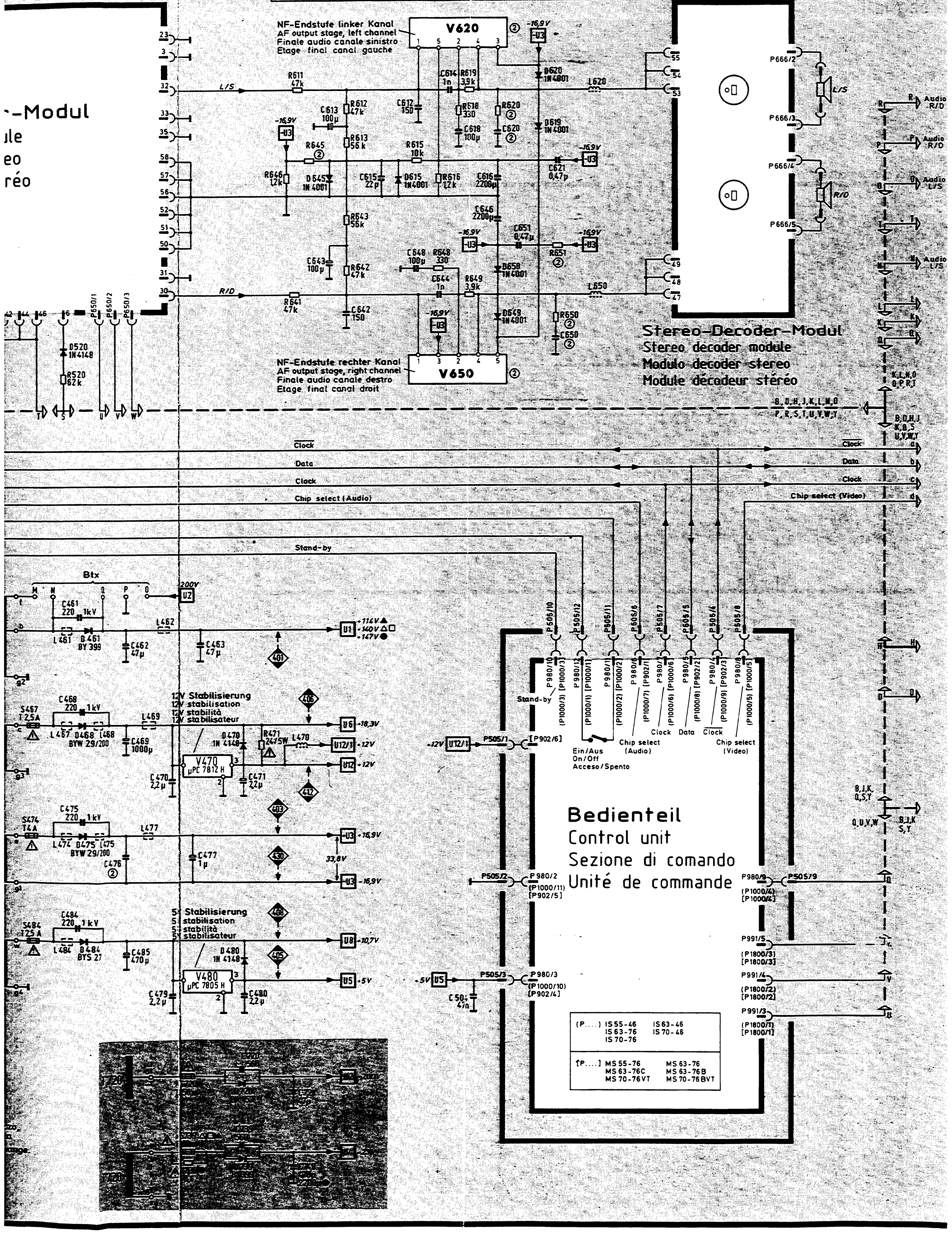


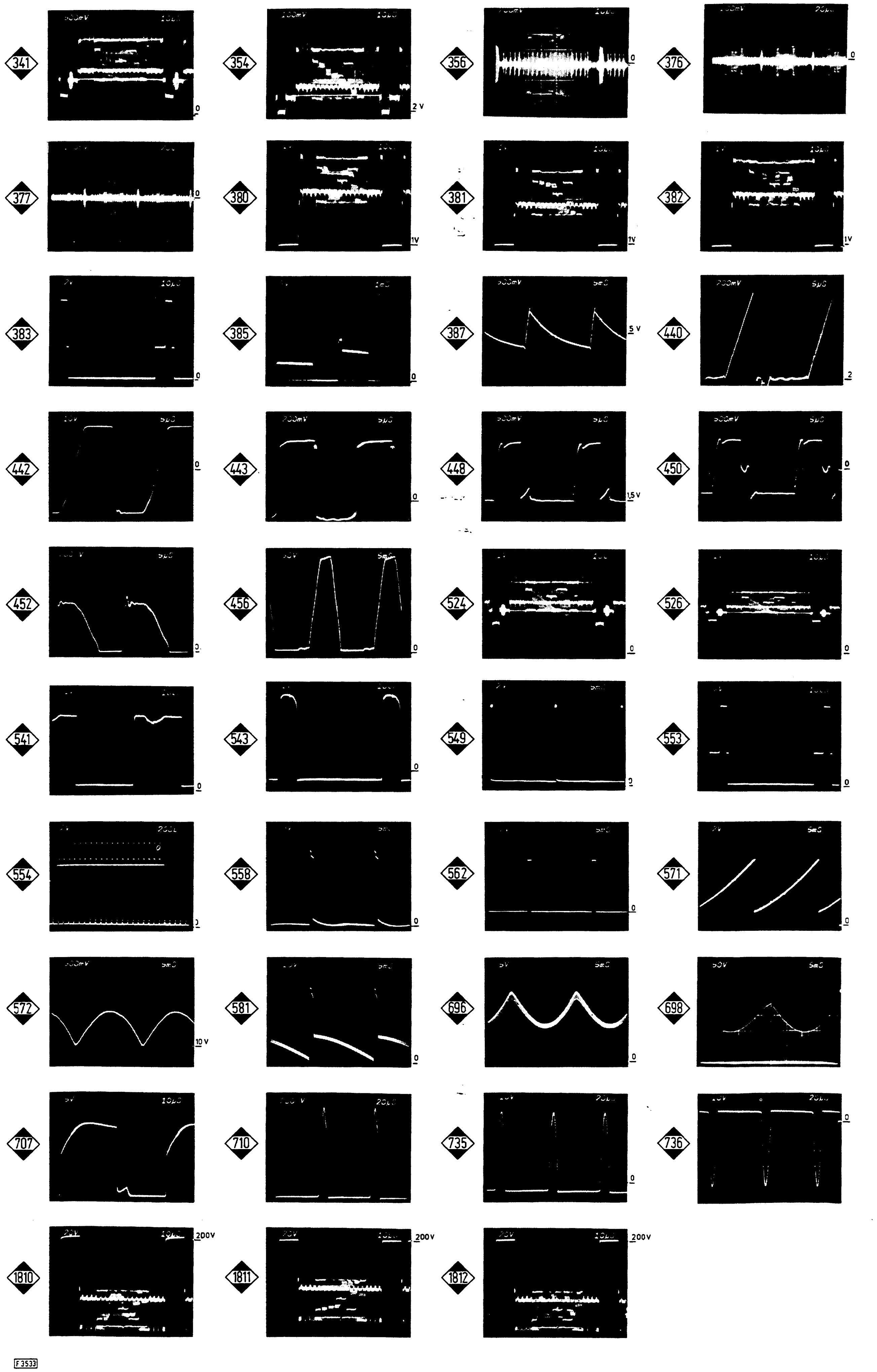
8 668 304 950/960
8 668 305 601/670
8 668 305 610/680
8 668 305 620/690
8 668 305 651
8 668 305 652
Mono U3 +24,5V
+16,9V U3 Stereo +33,8V
+16,9V U3
+10,7V U8
526
+17,5V Mono +18,3V Stereo U6
452
+114V +140V +144V U1
440
442
456
448
443
450
Stereo-Decoder-Modul
Modulo decoder stereo
oder/or/o
NF-Modul
AF modul
Modulo di bassa frequenza
Signal-Modul
Modulo segnali
HF-ZF-Modul
RF-IF modul
Modulo AF-MF
Euro-AV
(AV/Peritelevisione
Wandlertrafo
Transformer
Trasformatore rete
Btx
Verbindungs-Pl./Connection board
Piastra di collegamento oder/or/o
Videotext-Modul/Modulo televideo
(Nachrustsatz/Supplementary kit)
(Kit supplementare)
Horiz.-Ausgangstrafo/DST
Line output transformer/DST
Trasformatore uscita orizzontale/DST
220V~
P401
S401
L421
L401
P420
R420 PTC
H408
T401
T450
T720
T708
T698
V440
V450
V470
V480
V408
V415
V410
V414
V420
V427
V730
V760
V707
V694
V696
V795
V693
V710
V620
V650
P731
P505
P713
P712
F4187
F4186
524
549
541
543
553
U11 +10V
554
U12/1 +12V
U12 +12V
U5 +5V
558
581
562
571
U2 +200V
U4 +23V
586
572
707
709
736
735
698
710

V570/TDA1870	
R560	—
1MΩ	X

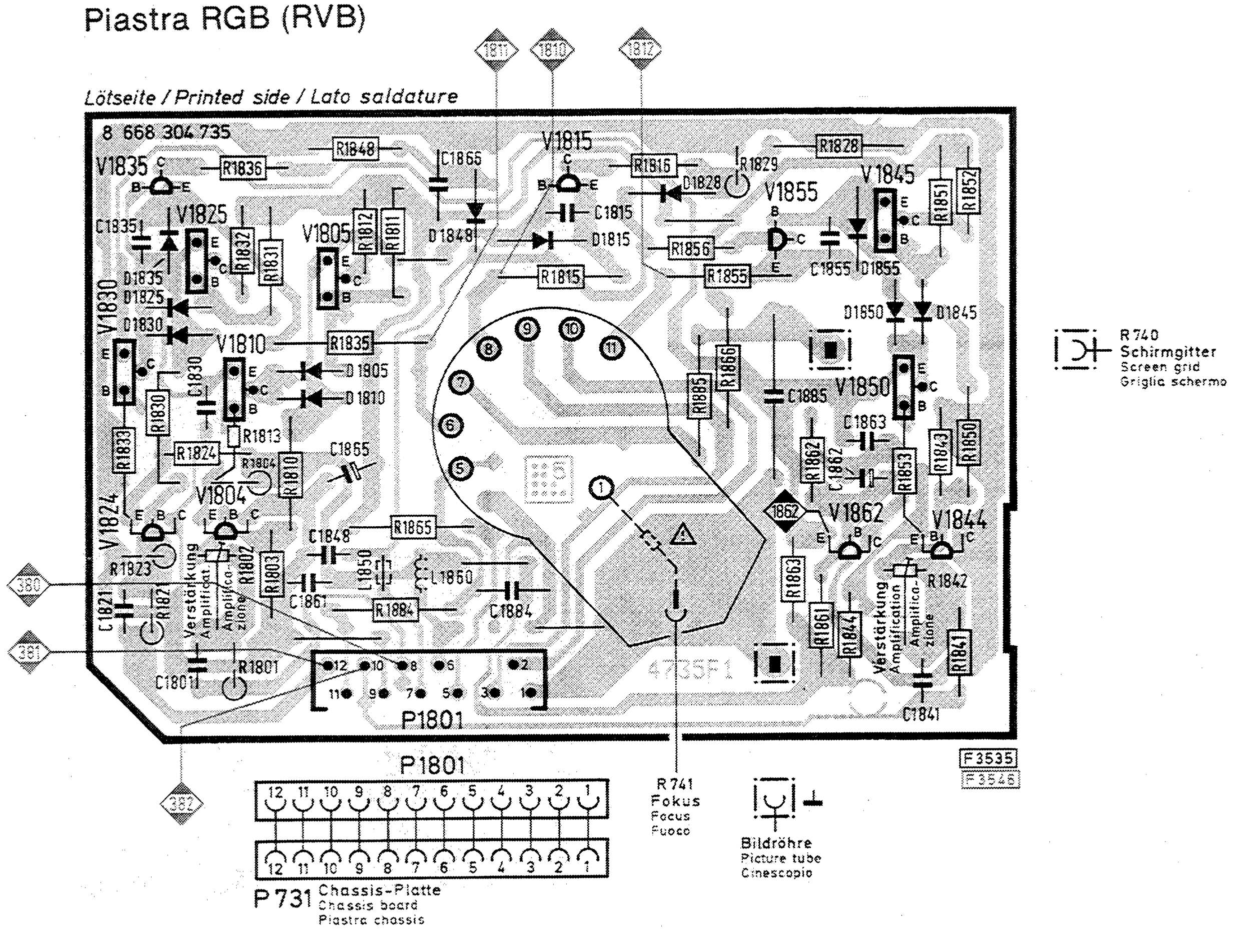
HF-ZF-Modul
RF-IF module
Modulo AF-MF
Module HF-FI
75Ω
Abstimmspannung
Tuning voltage
Tensione di sintonia
Tension d'accord
0…+30V
Bd. I ≦+8V
Bd. III ≧+10V
UHF ≧+10V
Bd. I ≧+10V
Bd. III ≦+8V
UHF ≧+10V
Tastimpuls
Keying pulse
Impulsi di riga
Impulsion de clamp
-22V
+5V
+12V
R501 91k
L502
C502 220p
U5 +5V
C503 220µ
L503
U12/1 +12V
R503 22k
524
D502 1N4148
R502 5,6k
C501 10µ
Ton-ZF/Sound IF/Audio MF
ZF-Stumm/IF muting
MF silenziamento/FI silencieux
H ≙ Video ext.
L ≙ Video int.
U1 +114V ▲ +140V △□ +147V ●
R506 15k
D506 ZPD30
C506 47n
C511 12
Q510 4MHz
R517 1k
R519 1k
R518 10k
R509 150k
C515 47µ
R508 47n
PLL
V510 SAB 3036
C512 0,1µ
R512 10k
C514 0,33µ
C513 47n
C509 0,1µ
R514 1k
R515 1k
R510 10k
C517 △ 1,5n
D511 1N4148
507
510
Abstimmspannung
Tuning voltage
Tensione di sintonia
Tension d'accord
Data
Clock
Schaltspannung
Switching voltage
Tensione di commutazione
Tension de commutation
Multiton-Modul
Multisound module
Modulo audio bistandard
Module multison
(Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
P531/5
P531/6
P531/1
P531/3
P531/2
P531/8
P531/4
P531/7
U12/1 +12V
-5V U5
+16,9V U3
-16,9V U3
Stereo-Decoder-Modul
Stereo decoder module
Modulo decoder stereo
Module décodeur stéréo
L/S
R/D
Clock
Data
Clock
D520 1N4148
R520 62k
P650/1
P650/2
P650/3
Chassis-Platte
Chassis board
Piastra chassis
Platine chassis
△ 4950/5603
□ 5601/5603
● 5620/5623/5624
▲ 5651/5654
▲ 5652
411
D405 1N4002
C405 1,5n/1kV
C406 470p
C416 4,7n
V415 BD135-10
R415 2,7k
C415 100µ
D415 ZPD11
D419 1N4148
+10V U1
C414 0,1µ
C424 47µ
D422 1N4148
R422 10k
D421 1N4148
C418 100p
R423 10k
V414 BC308B
-5V U5
R418 10k
R417 47k
V420 BC238B
R424 15k
V421 BC238B
220V~
S401 T2A
P401
C401 0,22µ
L401
R403 8,2k
R402 10M
T401
C407 1,5n/1kV
D407 1N4002
C408 470µ
V408 BC237B
R408 1k
R409 18k
V410 BC556B
R410 1k
R411 18k
V411 BC237B
R412 10k
R413 2,7k
D408 1N4148
H408
Entmagnet.-Spulen
Demagnetizing coils
Bobina di smagnetizz.
Bobines de démagnétisation
P420/1
P420/5
C420 47n
R420 PTC
L421
C421 1,5n
C422 1,5n
R421 8,2k
F4189
Vor IC Wechsel C433 entladen
Discharge C433 before replacing IC
Prima di sostituire il ci (V440) scaricare C433
Avant de remplacer le ci, déchanger C433
V440
TDA 4600-2
TDA 4601
Schaltstufe, U-stab.
Bereitschaftsschalter
Basisstrom-Verstärker
Basisstrom-Abschalter
Steuer-Logik
Regelstufe
Startstufe
Netzteil-Steuerung
Mains unit control
Comando d'alimentatore
Commandé l'alimentation secteur
D456 1N4007
456
455
R456 12k/5W
C455 220/1kV
D455 CT399
R449 100k
448
450
L448
R448 0,68
C450 100p
L449
D450 BA157
R450 27
C456 100µ
Netzteil-Schalttransistor
Mains unit switching transistor
Trans store commutazione d'alimentatore
Transisteur commutation alimentation
L450
V450 2SD1279
L451
L452
R452 33/4W
C452 2,2n/1,5kV
C453 220 2kV
452
R443 15k
C443 33n
C446 56
443
R445 27k
R446 1,1k
R447 2,2k
R444 75k
440
C440 68n
C441 1µ
444
442
D442 BA157
C442 220
R442 15/1,5W
R440 330k
S450 F1,6A
C432 1,5n
C427 1,5n 1kV
C428 1,5n 1kV
C423 0,1µ
4x1N4007
D427
D425
D428
D426
C425 1,5n 1kV
C426 1,5n 1kV
C434 4,7n
C433 220µ
Achtung! Beim Auswechseln unbedingt auf richtige Polung achten
Attention! When exchanging this part please take care of polarity
Attenzione! Quando scambiate questo pezzo, per favore vedete che la polarità sia giusta
Attention! A la polarisation en cas d'echange.
* gemessen gegen Emitter V450
measured against emitter V450
misurato contro emittitore V450
mesuraté par rapport à l'émetteur V450
T450
Btx
200V U2
C461 220 1kV
L461
D461 BY399
C462 47µ
L462
C463 47µ
S467 T2,5A
C468 220 1kV
L467
D468 BYW29/200
L468
C469 1000µ
L469
12V Stabilisierung
12V stabilisation
12V stabilità
12V stabilisateur
D470 1N4148
V470 µPC7812H
C470 2,2µ
C471 22µ
S474 T4A
C475 220 1kV
L474
D475 BYW29/200
L475
C476 ②
L477
C477 1µ
S484 T2,5A
C484 220 1kV
L484
D484 BYS27
C485 470µ
5V Stabilisierung
5V stabilisation
5V stabilità
5V stabilisateur
D480 1N4148
V480 µPC7805H
C479 2,2µ
C480 2,2µ
T720
C720 560
S720 158mA
D720 BA157
②

②	R620	C620	R645	R650	C650	R651	C476	V620	V650
2 x 20 W	1	0,22µ	10k	1	0,22 µ	2,7/9W	470µ	TDA 2030	TDA 2030
2 x 30 W	4,7	0,1µ	9,1k	4,7	0,1 µ	1,2/5W	1000µ	TDA 2040	TDA 2040

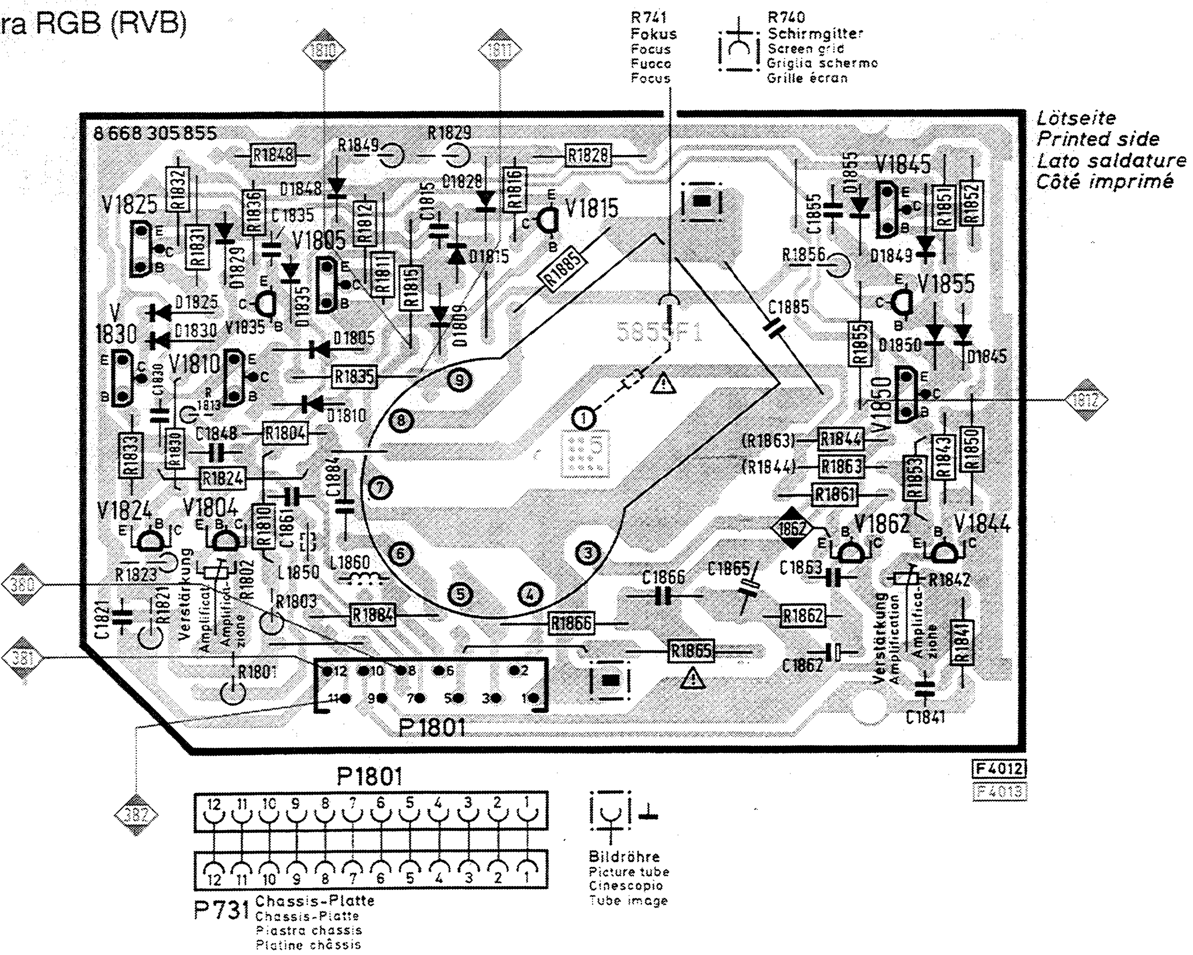

-Modul
ule
eo
réo
NF-Endstufe linker Kanal
AF output stage, left channel
Finale audio canale sinistro
Etage final canal gauche
V620
NF-Endstufe rechter Kanal
AF output stage, right channel
Finale audio canale destro
Etage final canal droit
V650
L/S
R/D
-16,9V
U3
Stereo-Decoder-Modul
Stereo decoder module
Modulo decoder stereo
Module décodeur stéréo
Audio R/D
Audio R/D
Audio L/S
Audio L/S
Clock
Data
Clock
Chip select (Audio)
Chip select (Video)
Stand-by
Btx
12V Stabilisierung
12V stabilisation
12V stabilità
12V stabilisateur
V470
µPC 7812 H
5V Stabilisierung
5V stabilisation
5V stabilità
5V stabilisateur
V480
µPC 7805 H
Bedienteil
Control unit
Sezione di comando
Unité de commande
Ein/Aus
On/Off
Acceso/Spento
(P....) IS 55-46 IS 63-46 IS 63-76 IS 70-46 IS 70-76
[P....] MS 55-76 MS 63-76 MS 63-76C MS 63-76B MS 70-76VT MS 70-76BVT



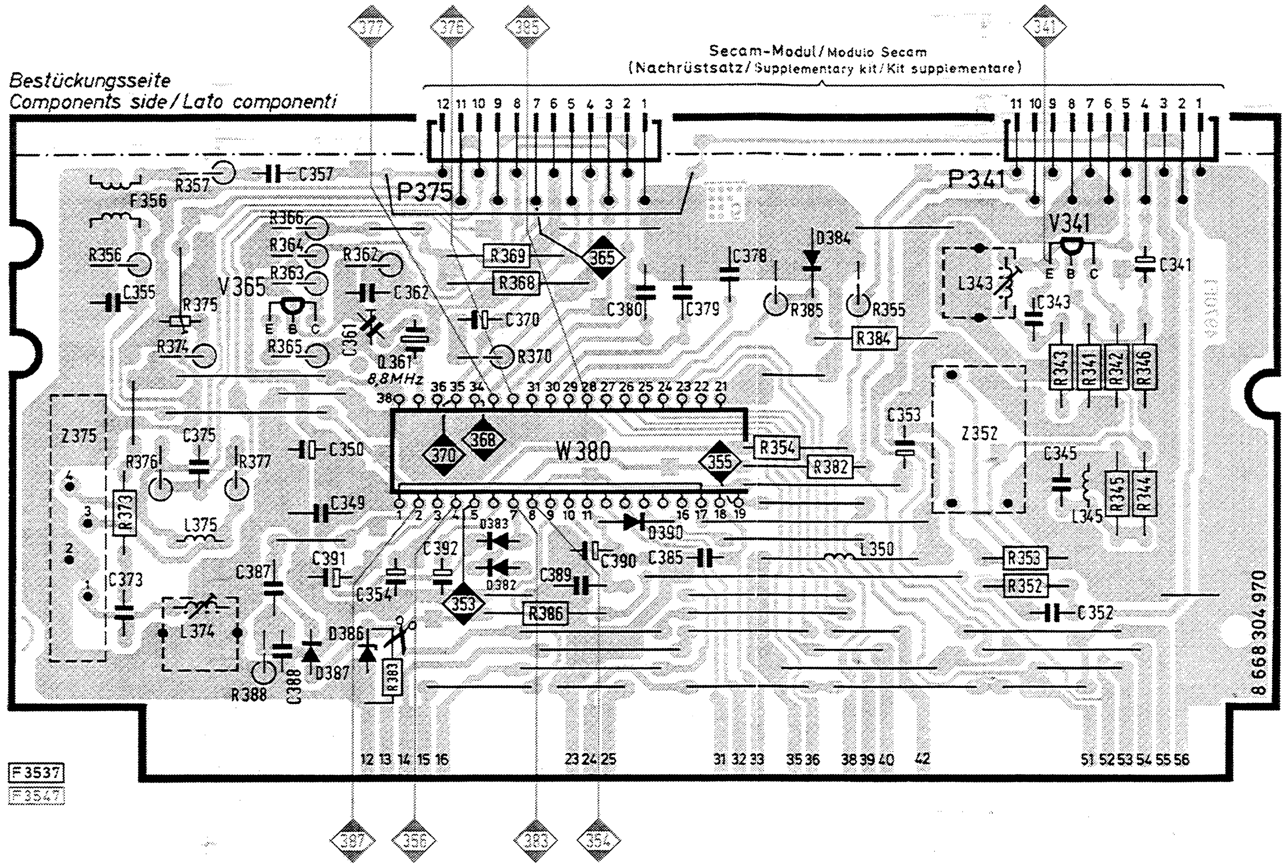
RGB-Platte 8 668 304 735
RGB Board
Piastra RGB (RVB)


Lötseite / Printed side / Lato saldature
8 668 304 735
1811
1810
1812
V1835
V1825
V1830
V1805
V1810
V1815
V1855
V1845
V1850
V1862
V1844
V1824
V1804
P1801
P1801
P731 Chassis-Platte
Chassis board
Piastra chassis
R740
Schirmgitter
Screen grid
Griglia schermo
R741
Fokus
Focus
Fuoco
Bildröhre
Picture tube
Cinescopio
Verstärkung
Amplification
Amplifica-zione
380
381
382
4735F1
F3535
F3546

RGB-Platte 8 668 305 855 ▲
RGB Board
Piastra RGB (RVB)

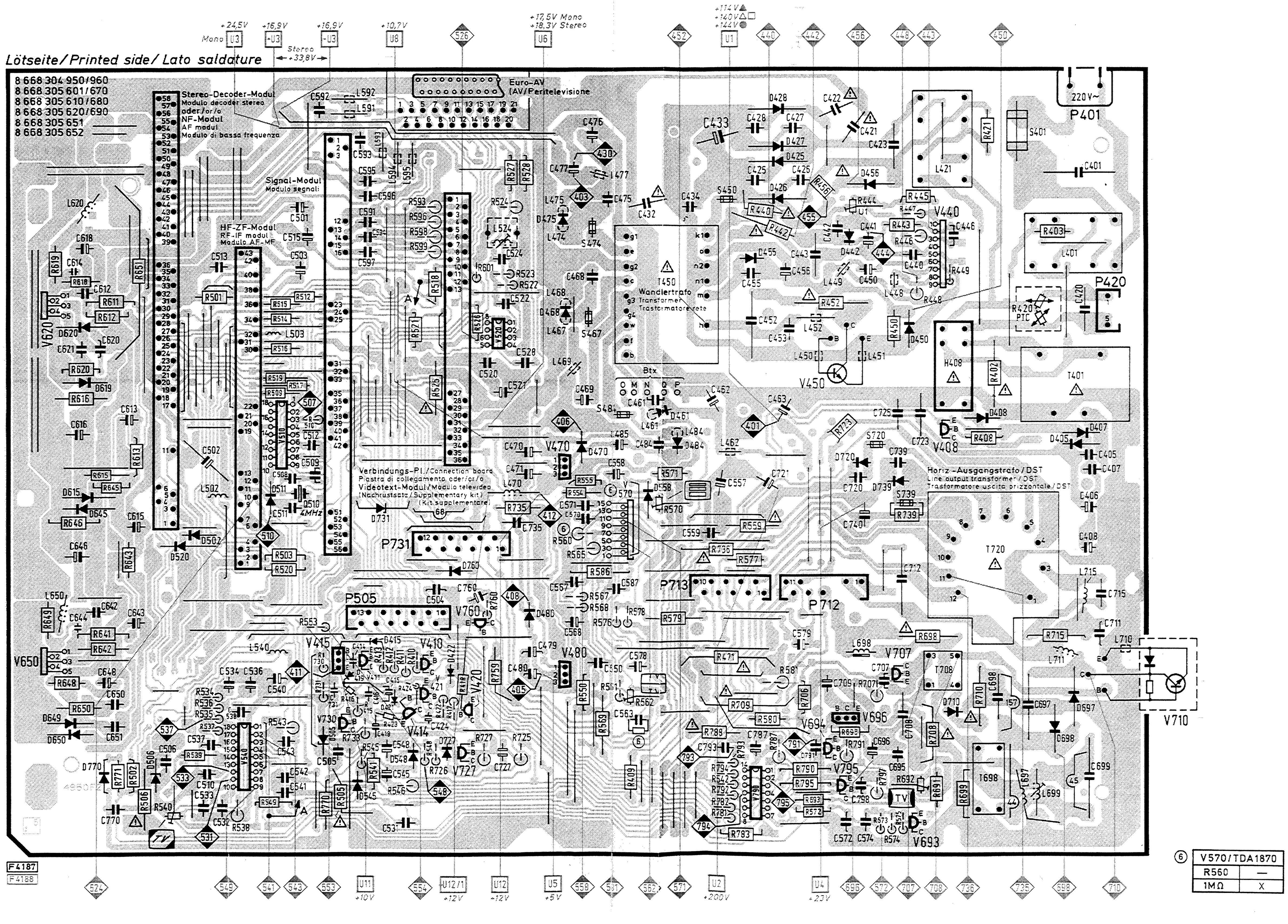

R741
Fokus
Focus
Fuoco
Focus
R740
Schirmgitter
Screen grid
Griglia schermo
Grille écran
Lötseite
Printed side
Lato saldature
Côté imprimé
8 668 305 855
1810
1811
1812
V1825
V1830
V1805
V1810
V1815
V1845
V1855
V1850
V1862
V1844
V1824
V1804
5855F1
P1801
P1801
P731 Chassis-Platte
Chassis-Platte
Piastra chassis
Platine châssis
Bildröhre
Picture tube
Cinescopio
Tube image
Verstärkung
Amplification
Amplifica-zione
380
381
382
F4012
F4013

Signal-Modul 8 668 304 970
Modulo segnali

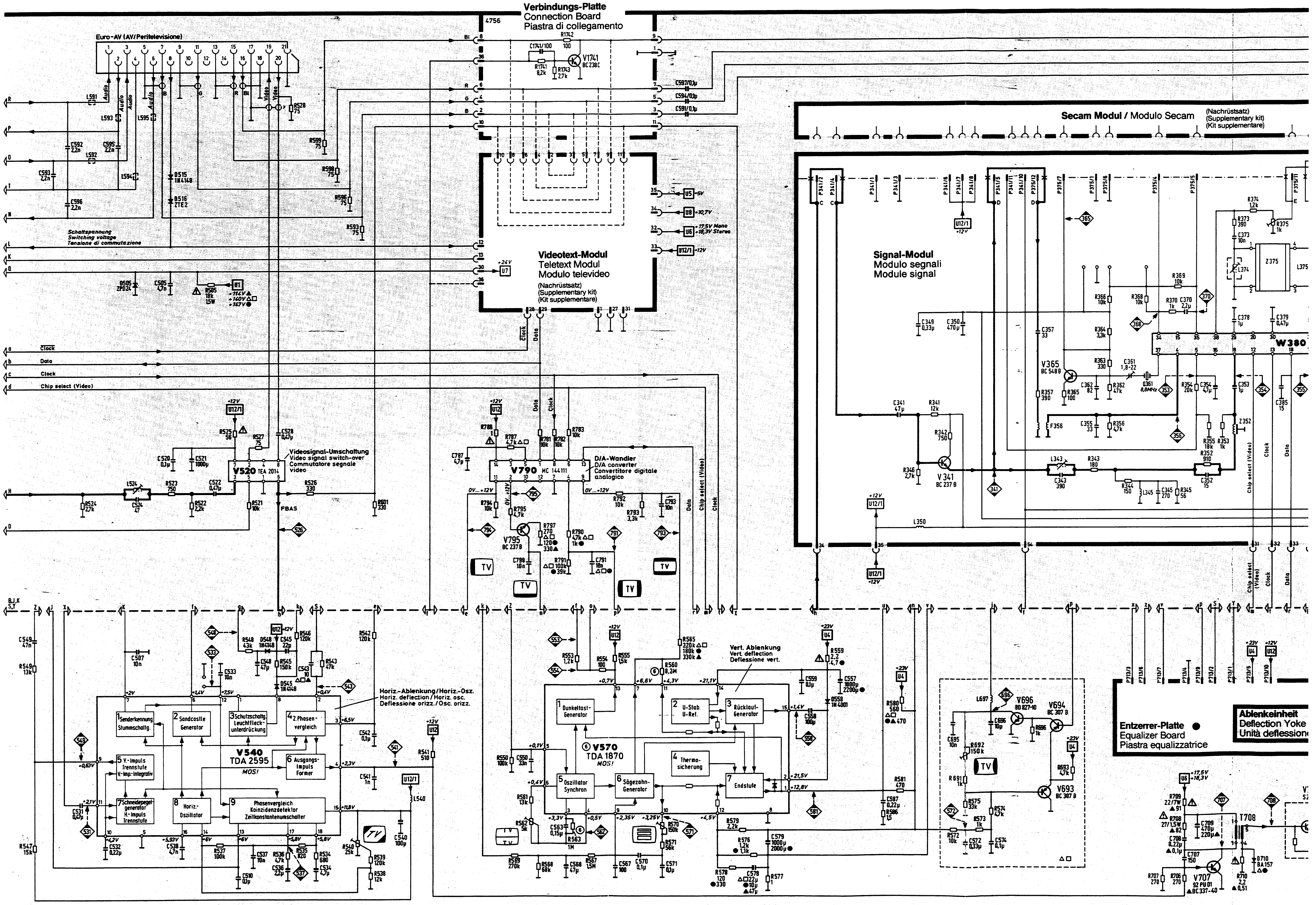

Bestückungsseite
Components side / Lato componenti
Secam-Modul / Modulo Secam
(Nachrüstsatz / Supplementary kit / Kit supplementare)
377
376
385
341
P375
P341
V365
V341
W380
Z375
Z352
L374
L375
L343
L345
8,8MHz
365
370
368
355
353
8 668 304 970
387
356
383
354
F3537
F3547

Chassis-Platte 8 668 304 950
8 668 305 601
8 668 305 610
8 668 305 620
8 668 305 651
8 668 305 652

Chassis Board
Piastra chassis


Lötseite/Printed side/ Lato saldature
8 668 304 950/960
8 668 305 601/670
8 668 305 610/680
8 668 305 620/690
8 668 305 651
8 668 305 652
Mono U3 +24,5V
+16,9V U3
+16,9V -U3
Stereo +33,8V
+10,7V U8
526
+17,5V Mono
+18,3V Stereo
U6
452
+114V
+140V
+144V
U1
440
442
456
448
443
450
Stereo-Decoder-Modul
Modulo decoder stereo
oder/or/o
NF-Modul
AF modul
Modulo di bassa frequenza
Signal-Modul
Modulo segnali
HF-ZF-Modul
RF-IF modul
Modulo AF-MF
Euro-AV
(AV/Peritelevisione
220V~
P401
S401
L421
T450
Wandlertrafo
Transformer
Trasformatore rete
Btx
V450
V440
P420
R420 PTC
H408
T401
V408
Horiz.-Ausgangstrafo/DST
Line output transformer/DST
Trasformatore uscita orizzontale/DST
T720
Verbindungs-Pl./Connection board
Piastra di collegamento oder/or/o
Videotext-Modul/Modulo televideo
(Nachrüstsatz/Supplementary kit)
(Kit supplementare)
4MHz
P731
P505
P713
P712
V470
V760
V415
V418
V420
V414
V480
V730
V727
V694
V696
V707
T708
V795
V790
V540
V620
V650
V693
T698
V710
V570
4850
TV
F4187
F4188
524
549
541
543
553
U11 +10V
554
U12/1 +12V
U12 -12V
U5 +5V
558
561
562
571
U2 +200V
U4 +23V
696
572
707
708
736
735
698
710

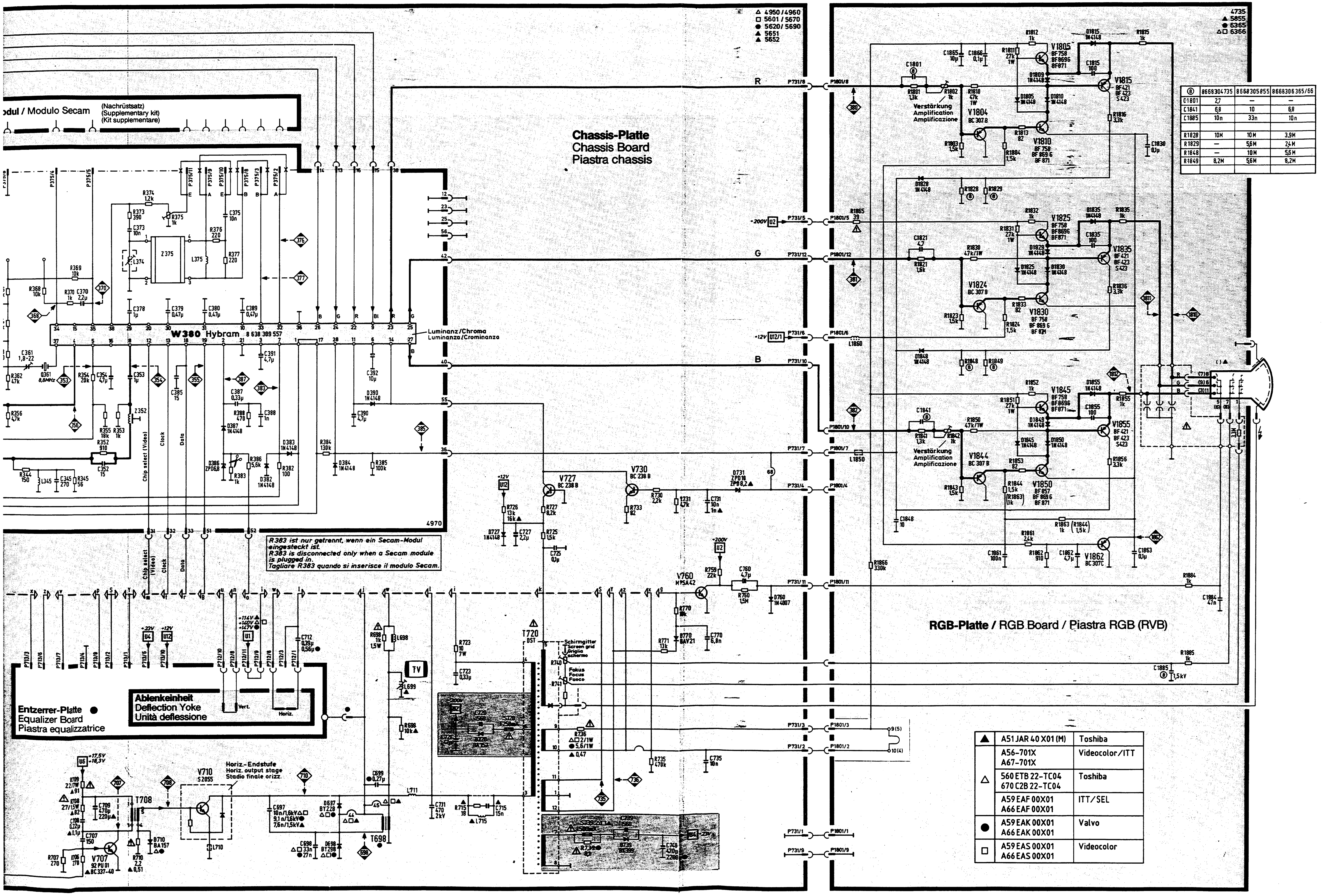
⑥	V570/TDA1870
R560	—
1MΩ	X


Verbindungs-Platte
Connection Board
Piastra di collegamento
4756
Euro-AV (AV/Peritelevisione)
Schaltspannung
Switching voltage
Tensione di commutazione
Videotext-Modul
Teletext Modul
Modulo televideo
(Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
Secam Modul / Modulo Secam
Signal-Modul
Modulo segnali
Module signal
W380
Clock
Data
Chip select (Video)
Videosignal-Umschaltung
Video signal switch-over
Commutatore segnale video
V520 TEA 2014
FBAS
D/A-Wandler
D/A converter
Convertitore digitale analogico
V790 MC 144111
V795 BC 237B
V341 BC 237 B
V365 BC 548 B
Horiz.-Ablenkung/Horiz.-Osz.
Horiz. deflection/Horiz. osc.
Deflessione orizz./Osc. orizz.
V540
TDA 2595
MOS!
1 Senderkennung Stummschaltg.
2 Sandcastle Generator
3 Schutzschaltg. Leuchtfleckunterdrückung
4 2.Phasenvergleich
5 V.-Impuls Trennstufe V-Imp-Integrativ
6 Ausgangs-Impuls Former
7 Schneidepegelgenerator H.-Impuls Trennstufe
8 Horiz.-Oszillator
9 Phasenvergleich Koinzidenzdetektor Zeitkonstantenumschalter
Vert. Ablenkung
Vert. deflection
Deflessione vert.
⑥ V570
TDA 1870
MOS!
1 Dunkeltast-Generator
2 U-Stab. U-Ref.
3 Rücklauf-Generator
4 Thermo-sicherung
5 Oszillator Synchron
6 Sägezahn-Generator
7 Endstufe
V696 BD 827-10
V694 BC 307 B
V693 BC 307 B
V707 92 PU 01 ▲BC337-40
T708
Entzerrer-Platte ●
Equalizer Board
Piastra equalizzatrice
Ablenkeinheit
Deflection Yoke
Unità deflessione
TV

F4190

Die Spannungen an den IC's sind Richtwerte, gemessen bei normalem Fernsehbetrieb. Sie können nach oben oder unten abweichen.
The given voltages at the ICs pins are approximate values. They are measured during normal operation of the TV set. They may vary more or less.
Le tensioni sui C.I. corrispondono a valori effettivi misurati con apparecchio in normale funzionamento. Sono possibili variazioni in più o in meno.

⑥	V570/TDA 1872
R560	X
R563	—

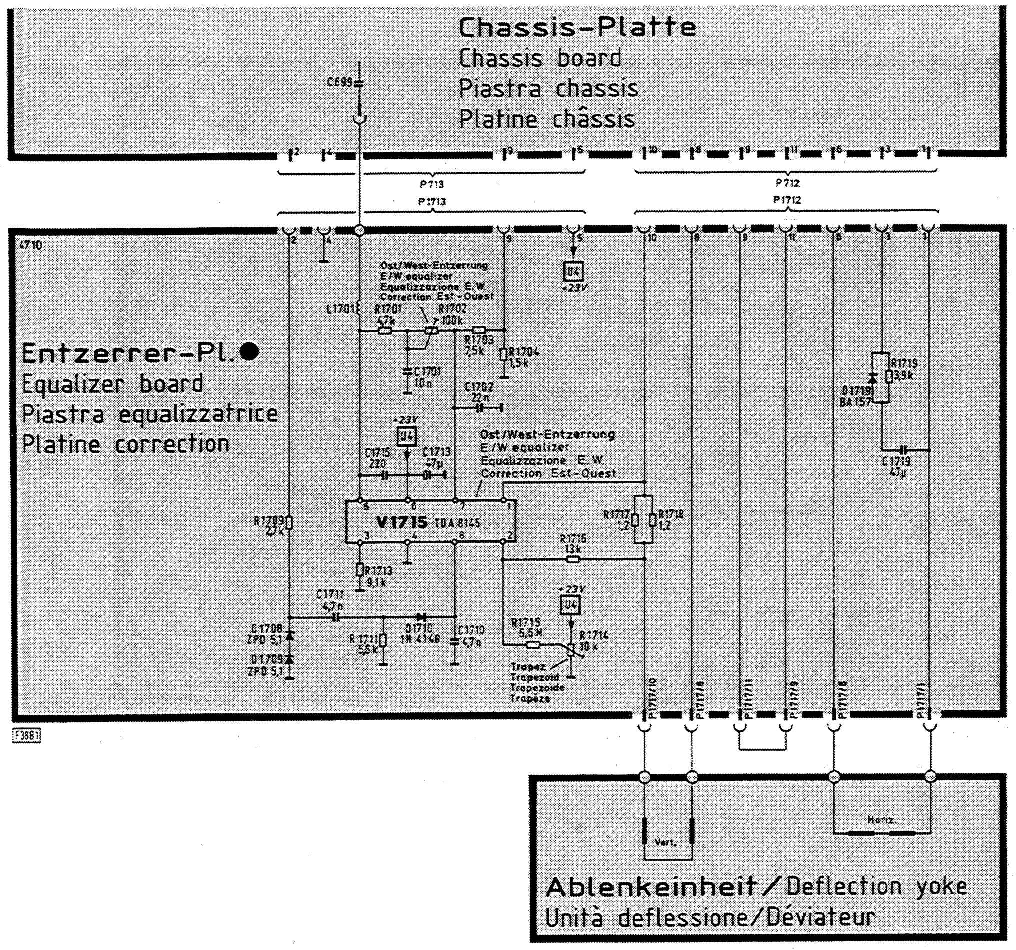

Modul / Modulo Secam
(Nachrüstsatz)
(Supplementary kit)
(Kit supplementare)
Chassis-Platte
Chassis Board
Piastra chassis
W380 Hybram 8 638 309 557
Luminanz/Chroma
Luminanza/Crominanza
Chip select (Video)
Clock
Data
4970
V727 BC 238 B
V730 BC 238 B
V760 MPSA 42
T720 DST
Schirmgitter
Screen grid
Griglia schermo
Fokus
Focus
Fuoco
Ablenkeinheit
Deflection Yoke
Unità deflessione
Vert.
Horiz.
Entzerrer-Platte ●
Equalizer Board
Piastra equalizzatrice
V710 S2055
Horiz.-Endstufe
Horiz. output stage
Stadio finale orizz.
T708
T698
V707
RGB-Platte / RGB Board / Piastra RGB (RVB)
Verstärkung
Amplification
Amplificazione
V1805
V1815
V1804
V1810
V1825
V1835
V1824
V1830
V1845
V1855
V1844
V1850
V1862
R
G
B
△ 4950 / 4960
□ 5601 / 5670
● 5620 / 5690
▲ 5651
▲ 5652
4735
▲ 5855
● 6365
△□ 6366

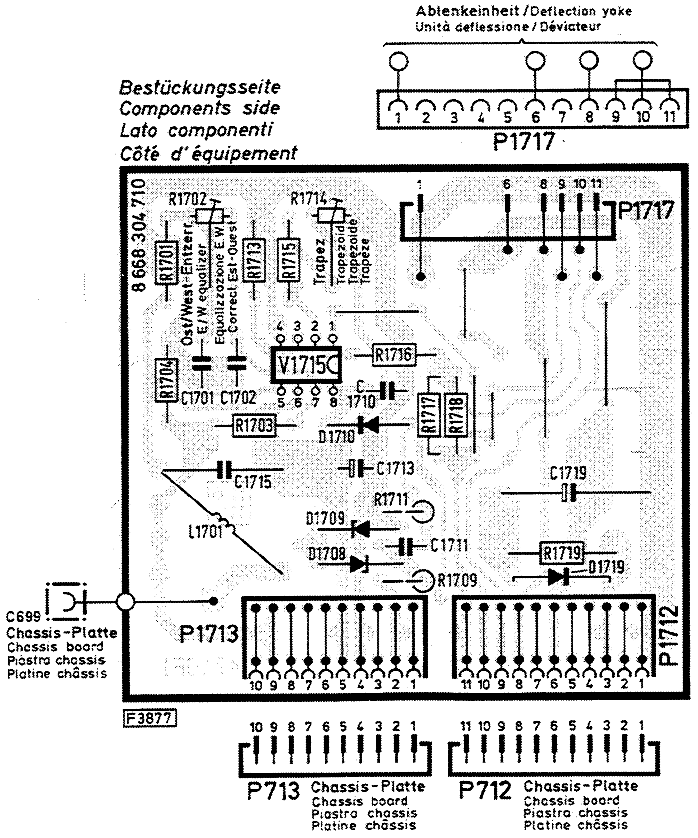
R383 ist nur getrennt, wenn ein Secam-Modul eingesteckt ist.
R383 is disconnected only when a Secam module is plugged in.
Tagliare R383 quando si inserisce il modulo Secam.

⑧	8668304735	8668305855	8668306365/66
C1801	2,7	—	—
C1841	6,8	10	6,8
C1885	10n	33n	10n
R1828	10M	10M	3,9M
R1829	—	5,6M	2,4M
R1848	—	10M	5,6M
R1849	8,2M	5,6M	8,2M

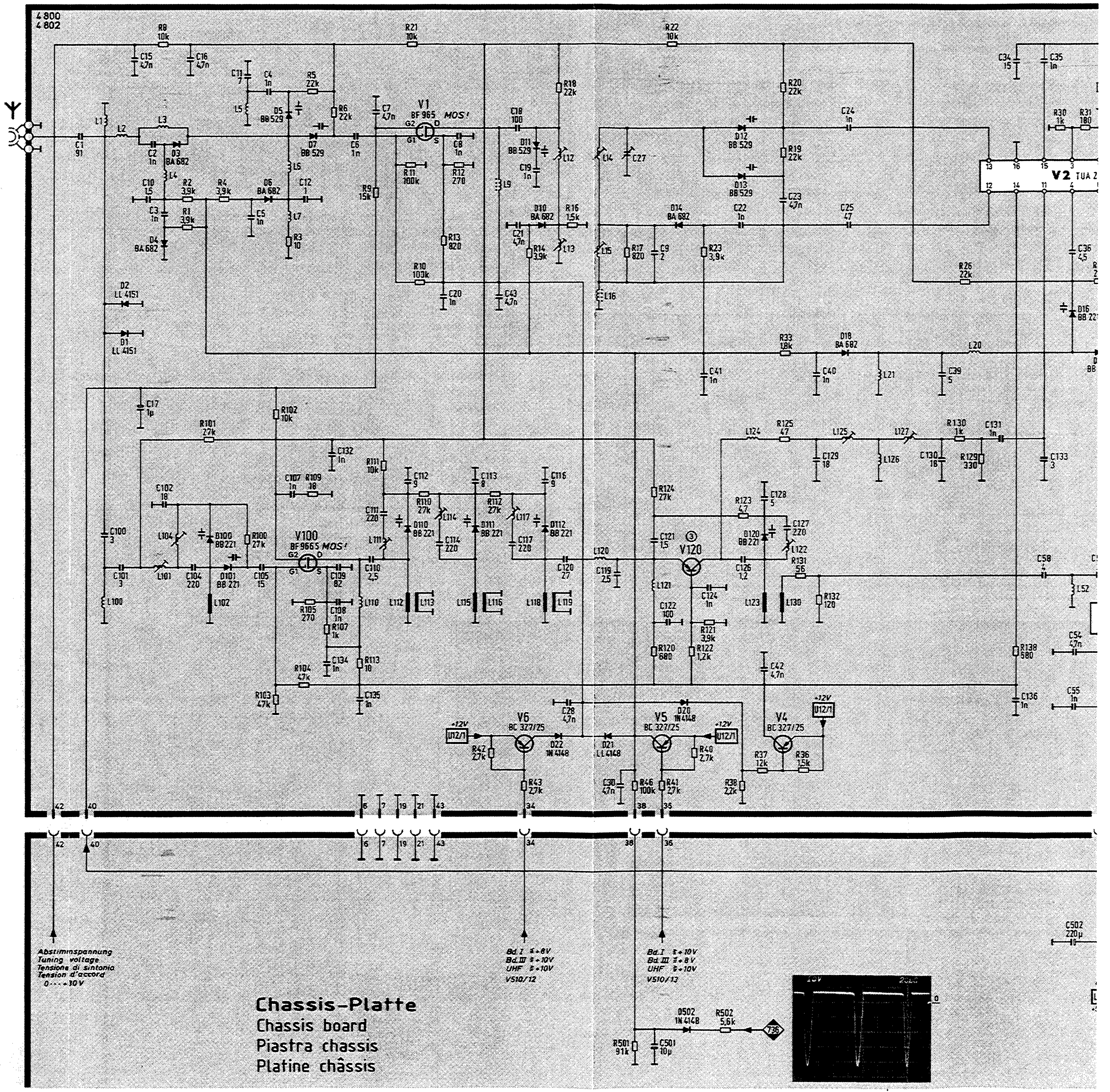
▲	A51 JAR 40 X01 (M)	Toshiba
△	A56-701X A67-701X	Videocolor/ITT
	560 ETB 22-TC04 670 C2B 22-TC04	Toshiba
	A59 EAF 00X01 A66 EAF 00X01	ITT/SEL
●	A59 EAK 00X01 A66 EAK 00X01	Valvo
□	A59 EAS 00X01 A66 EAS 00X01	Videocolor

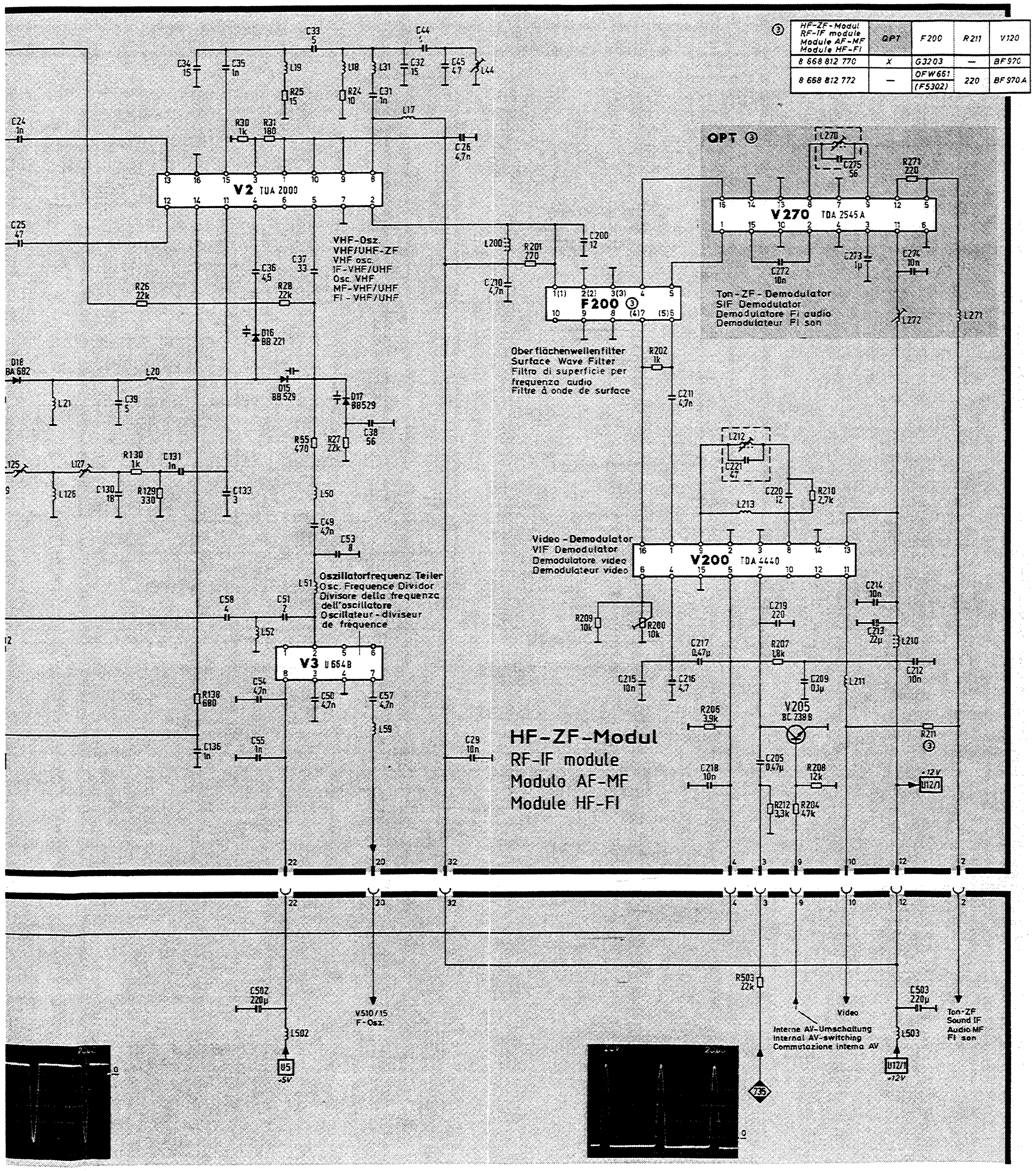
Entzerrer-Platte 8 668 304 710
Equalizer Board
Piastra equalizzatrice


Chassis-Platte
Chassis board
Piastra chassis
Platine châssis
C699
P713
P1713
P712
P1712
Entzerrer-Pl.●
Equalizer board
Piastra equalizzatrice
Platine correction
Ost/West-Entzerrung
E/W equalizer
Equalizzazione E.W.
Correction Est-Ouest
Trapez
Trapezoid
Trapezoide
Trapèze
V1715 TDA 8145
+23V
Ablenkeinheit / Deflection yoke
Unità deflessione / Déviateur
Vert.
Horiz.
F3381


Ablenkeinheit / Deflection yoke
Unità deflessione / Déviateur
Bestückungsseite
Components side
Lato componenti
Côté d'équipement
P1717
8 668 304 710
Ost/West-Entzerr.
E/W equalizer
Equalizzazione E.W.
Correct. Est-Ouest
Trapez
Trapezoid
Trapezoide
Trapèze
V1715
C699
Chassis-Platte
Chassis board
Piastra chassis
Platine châssis
P1713
P1712
F3877
P713
P712

HF/ZF-Modul 8 668 812 770
RF-IF Module
Modulo AF-MF


V1 BF 965 MOS!
V100 BF 9665 MOS!
V120
V2 TUA
V6 BC 327/25
V5 BC 327/25
V4 BC 327/25
+12V
Abstimmspannung
Tuning voltage
Tensione di sintonia
Tension d'accord
0 ... +30V
Bd.I ≙ +8V
Bd.III ≙ +10V
UHF ≙ +10V
V510/12
Bd.I ≙ +10V
Bd.III ≙ +8V
UHF ≙ +10V
V510/12
Chassis-Platte
Chassis board
Piastra chassis
Platine châssis
F4097

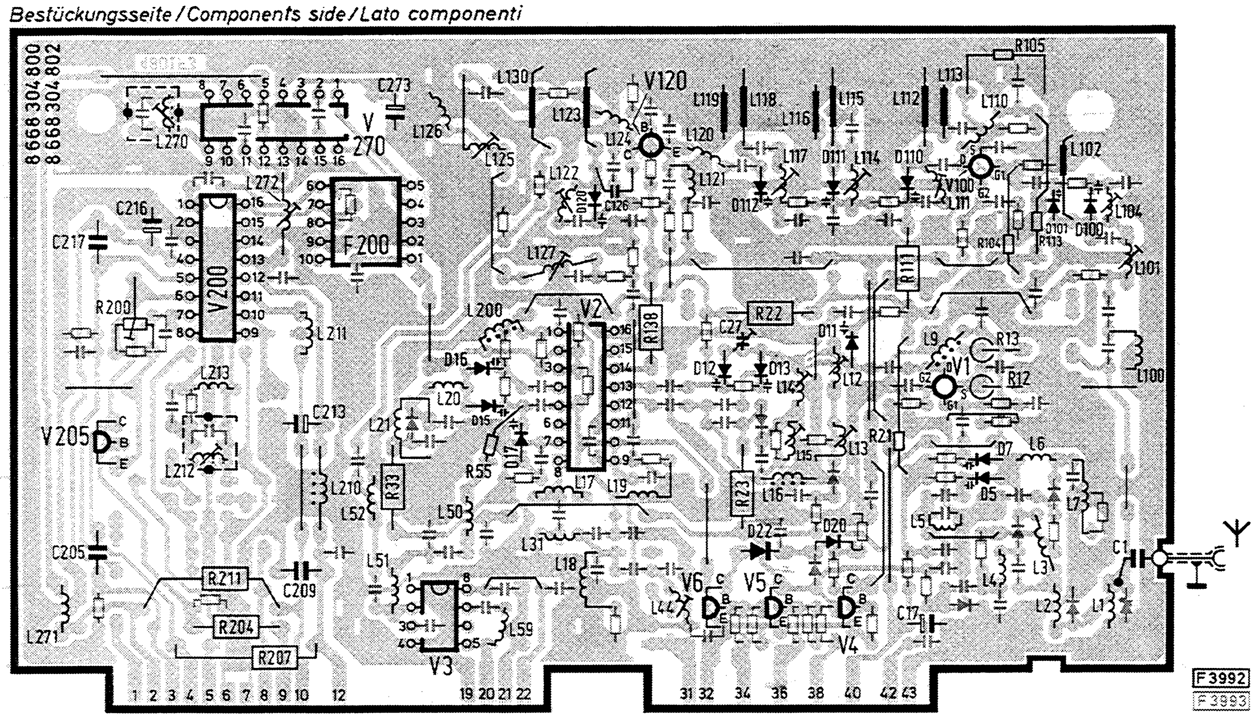

C33
C44
C34 15
C35 1n
L19
L18
L31
C32 15
C45 47
L44
R25 15
R24 10
C31 1n
L17
R30 1k
R31 180
C26 4,7n
C24 1n
V2 TUA 2000
C25 47
VHF-Osz.
VHF/UHF-ZF
VHF osc.
IF-VHF/UHF
Osc. VHF
MF-VHF/UHF
FI - VHF/UHF
C36 4,5
C37 33
R26 22k
R28 22k
D16 BB 221
D18 BA 682
L20
D15 BB 529
D17 BB529
L21
C39 5
R55 470
R27 22k
C38 56
R130 1k
C131 1n
L127
L126
C130 18
R129 330
C133 3
L50
C49 4,7n
C53 8
Oszillatorfrequenz Teiler
Osc. Frequence Dividor
Divisore della frequenza dell'oscillatore
Oscillateur - diviseur de fréquence
L51
C58 4
C51 2
L52
V3 U 6648
R138 680
C54 4,7n
C50 4,7n
C57 4,7n
L59
C136 1n
C55 1n
L200
R201 270
C200 12
C210 4,7n
F200 ③
Oberflächenwellenfilter
Surface Wave Filter
Filtro di superficie per frequenza audio
Filtre à onde de surface
R202 1k
C211 4,7n
QPT ③
L270
C275 56
R271 220
V270 TDA 2545 A
C272 10n
C273 1µ
C274 10n
Ton-ZF-Demodulator
SIF Demodulator
Demodulatore Fi audio
Demodulateur FI son
L272
L271
L212
C221 47
C220 12
R210 2,7k
L213
Video-Demodulator
VIF Demodulator
Demodulatore video
Demodulateur video
V200 TDA 4440
R209 10k
R200 10k
C217 0,47µ
C219 220
R207 1,8k
C214 10n
C213 22µ
L210
C212 10n
C215 10n
C216 4,7
C209 0,1µ
L211
R206 3,9k
V205 BC 238 B
R211 ③
C29 10n
HF-ZF-Modul
RF-IF module
Modulo AF-MF
Module HF-FI
C218 10n
C205 0,47µ
R208 12k
R212 3,3k
R204 4,7k
+12V
U12/1
22
20
32
4
3
9
10
12
2
23
C502 220µ
L502
U5
-5V
V510/15
F-Osz.
R503 22k
Video
Interne AV-Umschaltung
Internal AV-switching
Commutazione interna AV
C503 220µ
L503
U12/1
+12V
Ton-ZF
Sound IF
Audio MF
FI son
735
0

③ HF-ZF-Modul RF-IF module Module AF-MF Module HF-FI	QPT	F200	R211	V120
8 668 812 770	X	G3203	—	BF 970
8 668 812 772	—	OFW 651 (F5302)	220	BF 970 A

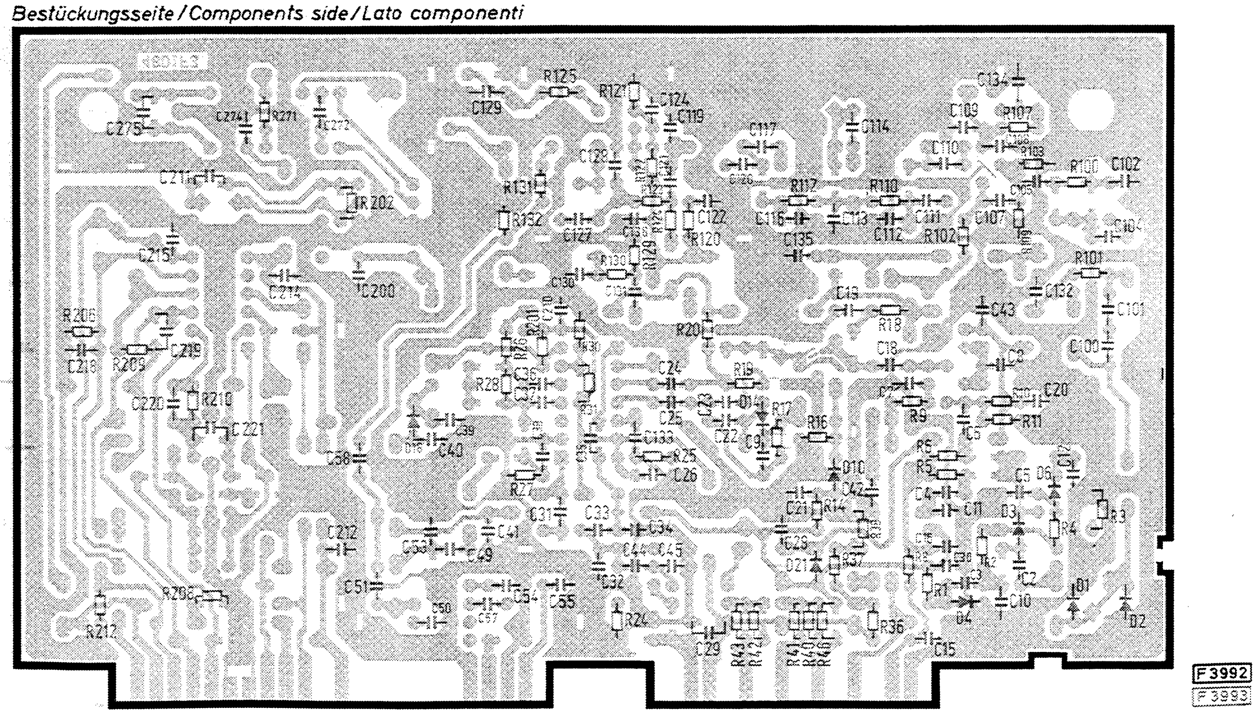
HF/ZF-Modul 8 668 812 770

RF-IF Module
Modulo AF-MF

Bestückungsseite / Components side / Lato componenti


8 666 304 800
8 668 304 802
V270
F200
V200
V2
V120
V1
V205
V3
V6
V5
V4
R211
R204
R207
1 2 3 4 5 6 7 8 9 10 12
19 20 21 22
31 32 34 36 38 40 42 43
F3992
F3993

Bestückungsseite / Components side / Lato componenti


F3992
F3993